MY SATURDAY BIRD CLASS

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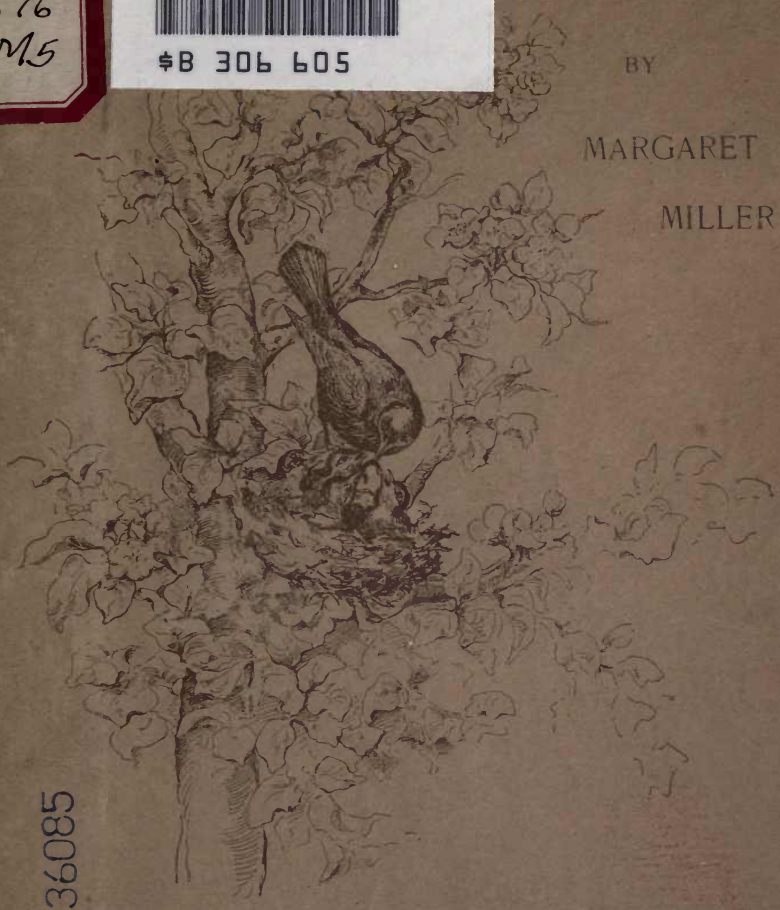
BY
MARGARET
MILLER



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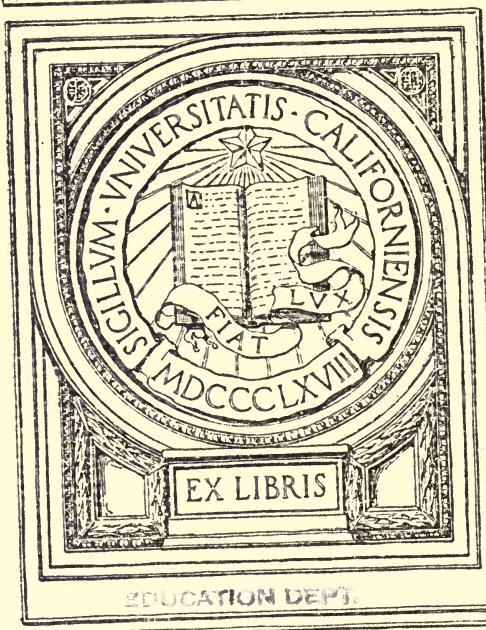

EDUCATION DEPT.

MY SATURDAY BIRD CLASS

BY

MARGARET MILLER

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PREFACE.

It is with the wish that the experiences related may inspire others to try the plan outlined in these pages of interesting children in the study of nature, that this journal of My Saturday Bird Class is published. What more delightful combination for the teacher can there be than summer, birds, and children?

With the exception of Chapter VI., "Billy Wren's Housekeeping," which appeared in *The Independent* (New York) for May 29, 1890, the record is here printed for the first time. The descriptions in the notes at the end of each chapter are drawn from Samuels's *Birds of New England and Adjacent States*, and Coues's *Key to North American Birds*, and from the latter source are also taken, by permission, the engravings of the bobolink, golden-winged woodpecker, downy woodpecker, kingfisher, blue jay, and butcher bird.

M. M.

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MY SATURDAY BIRD CLASS.

CHAPTER I.

THE ROBIN.

APRIL is here, and in all the school-rooms from Maine to Connecticut — to say nothing of school-rooms in other states — I think I can see eager faces turned often to the window and hear restless feet tapping the floor impatiently in prospect of a run over the greensward. The robin beside the door is calling, "Come out! come out!" and every bird that sings is inviting us to come and see. Who says that our feathered friends are shy? Come gently, gently, now, boys and girls, and say, "How do you do?" to them and see what they will say to it.

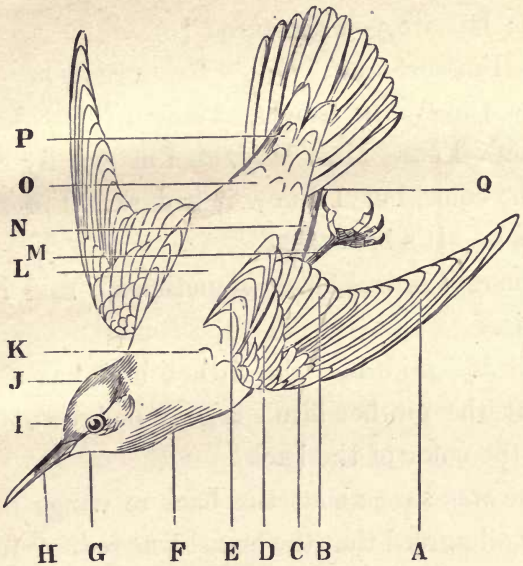
Last year a little girl who found that I knew the names of the birds came to me so often during the winter to ask about those that came to her door for crumbs that I began to think a bird class would be a good thing. So I said to Lois, and Lois said to all

the boys and girls she knew, that if they would meet for an hour every Saturday afternoon through the spring and summer, I would tell them what I knew about birds. So on the second Saturday in April I went to Lois' house, and there I found seven girls and three boys waiting for me. They all seemed quite happy at the prospect of the class; but when they spied a small book in my hand, the boys at once looked sober, and Cicely, the oldest girl, explained that they did not suppose that they were going to study out of a book.

"Why, no indeed," said I, "I wouldn't think of asking you to spend your holiday in that way. Now see; all I brought this for is to show you this drawing of a bird. When you tell me about a bird, I want you to use these names. Here is the bill H; this is the front, or forehead I; this, the crown, or top of the head J; here is the back L; this part of the back just above the tail is the rump O; the wing you see spread out A B C D E; just under the bill is the throat and chin, G and F; lower down is the breast; and the rest you may call the under parts. Now, when you've learned all these names, I will shut up the book, and we will not look in it again once.

"The way we are going to do is this: Each time you come, you shall tell me about some bird you

have seen, describing each part carefully. If I know what it is from your account, I will tell you the name of it. Then, after we have had a little talk, we will go for a walk to see what we can see."



A, primaries; B. secondaries; C, primary coverts; D, greater coverts; E, tertials; F, throat; G, chin; H, bill; I, front; J, crown; K, lesser coverts; L, interscapular region; M, leg (tarsus); N, abdomen; O, rump; P, upper tail coverts; Q, under tail coverts.

"Oh, Miss May, are we going to walk to-day? Can't we go now?"

"Why no; of course not yet. We are going to talk about our good friend, the robin, first. I wonder if any of you can describe his colors."

The children all looked at each other and laughed a little, and then Cicely said, "I think I can"; and one and another said, "I can, I can."

"That is good. Now begin, Tom, with the bill."

"It is yellow, isn't it?"

"Yes; but are you not sure?"

'Yes, I'm sure now."

"Now, Cicely, the front and crown."

"I don't know, Miss May, as I'm exactly certain about the color, but I know it is dark. I'm sure it isn't black. It's brownish."

"*I* thought it was black, sometimes," said bright-eyed Lois.

"So it is," said I; "the father bird has a black head, but the mother bird's is gray or brown. Now what is the color of the back?"

No one was sure about the back or wings or tail, but they all agreed that the breast was red. "Why, it must be red; for wasn't it called 'Robin Redbreast'?" Neither did any one know what colored stockings Mr. Robin wore, although little Johnny said he watched one only the day before.

"But please, Miss May, he ran so fast I couldn't see his legs at all."

"Now, you see," said I, "you do not know what kind of clothes your nearest neighbor wears, so you

will have to learn to look more sharply. The next time you come, you must do better than to-day. The next question is, 'What do robins eat?'"

Chorus. "Cherries and currants and corn and bread and worms and everything."

"Oh ho, oh ho, my boys and girls! So you think every kind of bird eats every kind of thing, do you? Just as if the little white boy and the Indian boy and the Chinese boy all had the same things for breakfast. Try again."

Tom. "I know they just stuff our cherries."

Johnny. "And they get all our strawberries."

Bertram. "And Uncle Henry says he would like to shoot every robin, so that he could have some fruit for himself."

"Is that so? I suppose poor Robin Redbreast does like cherries and berries, and perhaps no one ever told him that it was stealing. *I* do not call it stealing, though, and I'll tell you why. I think he earns every bit of fruit that he gets. I read a story not long ago that proves it.

"A man found a poor little robin that had fallen out of the nest before it could fly or had hardly any feathers on it. So he put it in a cage and began to feed it. He had had one before that he fed on bread and fruit, and it died, so he thought he would give

this one meat. He cut some beef into little strips, each as large as an angleworm. 'Now,' he said to himself, 'with four babies in the nest the old birds can't get them more than ten worms apiece a day.

"So the first day he gave the young bird ten bits of meat. The next morning the poor thing was so weak he thought it would die. That day he gave it fifteen, and the next twenty-four, and every day after that a few more. Still the bird did not grow any until the fourteenth day, when he gave it sixty-eight worms — more than its own weight. Just think of that! Every five minutes, all day long, the old birds come with their bills full of worms to stuff into the open mouths. Don't you think our fathers and mothers are glad their boys and girls do not eat more than their own weight of food in a day?

"Another man who was trying to raise some silk-worms had to cover his mulberry trees with netting, and then the robins would break through it, although there was plenty of fruit in the neighborhood. You see they knew their babies must have worms or they would die.

"Tell your Uncle Henry, Bertram, that if he should kill all the birds, I do not believe there would be a leaf left on his trees or a bush for the berries to grow on.

"There is one thing more that I have to tell you to-day, and that is our robin's family name. You may not know that all the birds belong in families just as you do; but so it is. Robin Redbreast belongs to the Thrush family, and a cousin of his is the catbird."

After we had all repeated the name, I said, "We will now go for a short walk in the orchard behind the barn, but the boys must remember that they can't see any birds unless they go quietly."

ROBIN.

Whoop! Boys go quietly on a Saturday, — who ever heard of such a thing! Outside the door were waiting the great mastiff, King, and his friend the Skye terrier, Trix, and fine helps they were for bird-seeing! A shout from the boys would startle a bird from a bush, and away both dogs would go after it until it was out of sight.

"O boys, boys! Why will you be boys! Why can't you tiptoe along as these girls are doing? See; there goes a robin. Can we get near enough to see that his throat is white streaked with black, and that

there are small white patches above and below th eye? Fie on those dogs! There he goes; but no we can see the white on his outer tail-feathers as h flies.

"Flitting through the tops of the trees is a flock o little birds keeping close together. They must b tree sparrows, those dear little birds that have bee with us all winter; for the spring birds do not go i flocks like that. Well, let us go back now. Ther is no use in going farther to-day. Another time w will leave the dogs behind — and the boys, too, i they can't go more softly. Good by, children; d not forget what I have told you, for I shall ask yo questions next Saturday."

FOR THE TEACHER.

THE THRUSH FAMILY.

Robin, already described.

Catbird: Color, blackish ash or dark slate; crown and ta black; under tail-coverts, chestnut. It is so called from i cry when alarmed, which is like a cat's mew. It has also song which resembles that of the brown thrush.

Brown thrush (thrasher): Color, reddish brown; belo white with more or less tawny tinge, and thickly spotted a streaked with dark brown. It has a long, richly varied son

Song-thrush or wood-thrush: Color, above, cinnamon brown, shading into olivaceous on rump and tail; beneath, white, marked with large, distinct, dusky spots. Its beautiful song is heard at early dawn and twilight.

Wilson's thrush: Color, above, nearly uniform light reddish brown; beneath, white, with small, indistinct spots on breast and sides. The song is a peculiar one, with a metallic ring difficult to describe, beginning quite loud and decreasing to a faint lisp. It is commonly called the veery from its note.

The hermit and olive-backed thrushes are not so often seen. They have the prevailing colors brown and white.

The mocking-bird of the Southern States belongs to this family.

All of these birds, with the exception of the robin, catbird, and mocking-bird, build in the woods and are quite shy.

The brown thrush rests in hedges and brush heaps on the prairies of Illinois; never in the woods.

CHAPTER II.

BLUEBIRD AND SPARROWS.

THE next week my class had increased to twelve, and as lively a brood of chickens I found them as ever an anxious mother hen had to look after.

As soon as we had seated ourselves and were tolerably quiet, I began, —

"Who knows to what family the robin belongs?"

No one looked as if they had ever heard of it, except Lois, who raised her hand.

"What! not remember what I told you?"

"Bird family, I guess," said Tom, pertly.

"Yes, and you belong to the boy family, I suppose.

"Come, Cicely," I said, turning to the oldest girl, "you ought to know."

Cicely. "I think you said the Bobolink family, did you not, Miss May?"

Lois could hold in no longer.

"It's a thrush, it's a thrush, Miss May!"

Chorus. "Oh yes; so it is."

"Can any one tell me what the young robins eat?"

The words were scarcely out of my mouth when there was a deafening chorus of, "Sixty-eight worms a day! sixty-eight worms a day!"

"Good! I am glad you have not forgotten that. Now I suppose you each have some bird to describe?"

Bertram. "I did not see any."

Tom. "I know a lot of them."

"Very well; describe one."

Tom. "Guess I'll take the chippy. It is a little bird about so big, and it is a kind of brown all over."

"Is that all you can say about it?"

"Yes'm."

"Then I think you have made a mistake. I should say that was a wren, from your description."

"Oh, but I know 'twas a chippy."

"How do you know?"

"Oh, by the looks of it."

"Yes; but you see I do not know. If you were telling me about some strange bird, I could not give you the name of it from any such description."

"Oh, teacher," said Annie Blanchard, leaning over the back of my chair, "what is that bird that always goes in the bushes and seems so lonesome when there

are no bushes for it to go in? It is a biggish kind of bird, but I forget what color it is — "

"Oh dear," I said to myself, "I am getting into trouble by agreeing to tell the names of birds from description"; then aloud, —

"I do not know, Annie. It must be a strange sort of bird. Have you seen it often?"

"Yes'm, lots of times; but not very lately."

"Well, I hope you will see it again so that you can tell me more about the colors. What is it you wish to say, Lois?"

"Oh, please, Miss May," said little Lois, rising. "I saw some birds down lot, and they looked like this" (as she talked she patted the parts of her body as she named them). "They were not as big as a robin, and they were bigger than a chippy. The top of the head — crown I mean —" (here she clapped both hands on her curls) — "was gray, and I think the back was a kind of speckled gray and brown, and underneath was all gray, and it had a black patch on the throat, here, so — only some did not have any black at all. Do you know what kind it was?"

"Very good, very good indeed, Lois. There is no mistaking that bird. Those were English sparrows; the ones without the black were the females. You know they were brought over here from England

several years ago. I am sorry they are getting so plenty in our little village, for they are quarrelsome, and drive away other birds."

"I know all about those English sparrers," said Bertram; "there's a man down to N. gives five cents apiece for 'em, and me and another feller's been shootin' 'em all the mornin'." Bertram, you see, was as careless about grammar as about everything else.

"Are you sure you get English sparrows every time," I asked, "and kill no other birds by mistake? You know it is against the law to kill any other little birds, and you may be fined ten dollars if you are not careful."

"Oh yes'm, I know," said Bertram, easily. As we were going for our walk that afternoon we passed Bertram's house, and he ran in and brought out a string of five birds for me to see. Three were small birds, hardly as large as a chippy, with crimson patches on the top of their heads.

"Why, Bertram, do you call these English sparrows? Do English sparrows have red caps?"

"I guess that's blood," said Bertram, beginning to look confused.

"No, it is not. These birds are called redpolls, which means red head, and they are the prettiest and dearest little birds that visit us sometimes in late

winter or early spring. They are so much smaller than the others I should think you would have known they were not English sparrows. Now let us see the other two, larger ones. This one with the spotted breast is a song-sparrow, poor thing! He will never sing his sweet song again, and all because a boy was so sure he knew he would not take the trouble to make sure. Here is just one English sparrow out of the lot, and four innocent birds had to suffer. Are you not proud of yourself, Bertram?"

Bertram looked quite ashamed as he took his birds into the house without saying another word.

But to go back to the lesson: we talked about the birds that are the very first to come back in spring. The dear bluebird was known to all, and some had noticed that he had red on his breast.

"Bright red?" said I.

"No; red as that," said they, pointing to a cherry-wood table.

"I think there is one building now in the post at the front corner of our house," said Lois. "We are just as careful as we can be, Mary and I, not to frighten it, and we have seen it going there lots of times.

"And there is another bird with a blue back, Miss May, that has been here all winter. It's not so blue

as the bluebird, and it has black on the back of its head that comes down so" (she drew her hands down over her ears and neck), "and underneath it is all white. It came to get crumbs at our back door almost every day."

"I gueth there'th one now," exclaimed Sidney, who had been looking out of the window. We all sprang to see, and there, sure enough, coming down the elm tree, only a few feet away, was the bird Lois had described.

"Yes, I thought so. It is a nuthatch."

"It's a little beauty," cried all the girls.

"I shouldn't think it would like to go with its head down all the time," said Tom.

"I have read that it sleeps with its head down," said I.

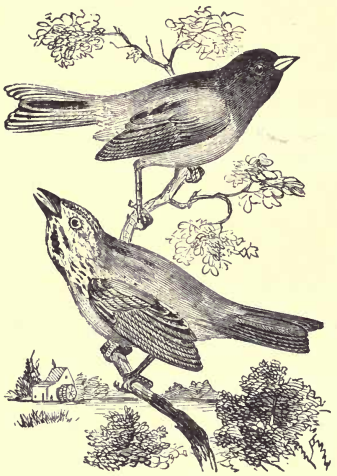
"My! I should think it would get a headache," said Kate.

Meanwhile little nuthatch was running about the trunk, undisturbed by the heads in the window, peeping under the bark with bright black eyes, and pulling out now and then a good morsel for his dinner. At last he flew away with a funny little note that sounded like "krek krek."

"Two other birds I must speak of before we go for our walk. One is the song-sparrow. I hope we

shall hear one to-day. It builds mostly on the ground in the fields, sometimes close by the road."

"Pooh! I've found their nests lots of times," said Tom. "I call them ground-birds. Their eggs are blue, speckled all over."



Upper Fig. SNOWBIRD.
Lower Fig. SONG-SPARROW.

"Well, after this you will have a better name for them. The best way of knowing the song-sparrow is by a distinct dark spot in the middle of its breast. There are smaller streaks or spots upon its sides. Then there is the chipping sparrow. How many know the chippy?"

Every hand went up, and I had so many stories told me all at once about chippies that had built in "my rose-bush" and "our hedge," that I concluded this bird needed no description. So we started forth for a walk. We stopped at the post at the corner, and, looking in, could see the bluebird's nest, with one pale blue egg in it. Then we went down to the graveyard to look for birds among the evergreens. The boys disappeared by the way, and as a ball

game was in progress up the street, we thought we knew what had become of them.

Kate said that she was going to find a hummingbird's nest. I told her "she would be a lucky girl indeed if she did."

We saw the blackbirds called purple grackles, spreading their boat-shaped tails as they flew about the pine trees in which they were building; we heard several song-sparrows singing; we followed a brown bird a long distance, but could not get near enough to see what it was. Then from one of the evergreens came a sweet, long-continued warble. As we were watching closely to see what it might be, the songster flew out and sailed over our heads, singing as he flew. We could see that he was about the size of a song-sparrow. Just as he disappeared into another spruce tree, we caught sight of the glowing crimson on the upper part of his body.

"Oh, it is a purple finch," I cried.

"I should think it ought to be a *red* finch," said Kate.

"No; purple finch is the name of it, although it looks more red than purple to us. It looks like a brown sparrow which has been dipped in a deep red dye. The head is the brightest color; the brown shows through on the other parts.

"Now that we have seen something worth seeing, let us go home."

FOR THE TEACHER.

THE SPARROW FAMILY.

Chipping-sparrow, or hair-bird: Color, rump, back of neck and sides of neck and head, ashy; crown, a continuous, uniform chestnut; forehead, black, separated in the middle by white; a white streak over the eye and a black one from the base of the bill through and behind the eye; under parts, ashy white; two narrow white bands across the wing-coverts. Length, $5\frac{3}{4}$ inches.

Tree-sparrow: Color, hood and upper part of nape continuous chestnut; a line of the same from behind the eye; sides of head and neck, ashy; a broad, light band over the eye; beneath, whitish, with a small, circular blotch of brownish in the middle of the upper part of the breast; edges of tail-feathers, primary quills, and two bands across the tips of the secondaries, white. Length, $6\frac{1}{4}$ inches.

I have described the parts in which the chipping-sparrow and tree-sparrow resemble each other, from which it may be seen that they might easily be confused.

The tree-sparrow breeds in the north, but comes in small flocks to spend the winter with us, often lingering till the first week in May.

The chipping-sparrow arrives here early in the spring, and is our neighbor and familiar friend through the summer.

The English sparrow has many unlovely traits, and often drives away more attractive birds; but I should hesitate to

encourage the spirit of destructiveness in boys by allowing them to kill even such objectionable birds.

There are many other kinds of sparrows in the United States, all of which bear a general resemblance to each other. A familiar member of this family is the snowbird, which is so frequently seen as a winter visitor that I give the description.

Snowbird: Color, grayish or dark ashy black, stopping abruptly on the breast; beneath, white; first and second external tail-feathers, white; the third tail-feather, white, margined with black. Length, $6\frac{1}{4}$ inches.

Closely allied to the sparrows are the finches and buntings, individual species of which will be mentioned later.

The lesser redpoll is a finch described as follows: —

Color, above, light yellowish, each feather streaked with dark brown; crown, dark crimson; upper part of breast and sides of the body tinged with a lighter tint of the same; the rump and under tail coverts also similar, but less vivid, and with dusky streaks; rest of under parts white, streaked on the sides with brown; wing-feathers edged externally and tail-feathers all round with white; two yellowish white bands across the wing-coverts; secondaries and tertiaries edged broadly with the same.

The specimen described above is a male in winter dress. The spring plumage has much more of the red.

The female winter specimens lack the rose of the under parts and rump. Length, $5\frac{1}{2}$ inches.

The redpoll is not a regular winter visitor, but is seen some years in great flocks. I have only observed it two seasons in ten years.

The male purple finch is in color crimson, rosy or purplish red, most intense on the crown, fading to white beneath, mixed with dusky streaks on the back; wings and tail dusky, with reddish edgings, and the wing coverts tipped with the same.

Female and young with no red — olivaceous brown, brighter on the rump, the feathers above all with paler edges, producing a streaked appearance; below, white, thickly spotted, and streaked with brown. Length, $6\frac{1}{4}$ inches.

This beautiful bird is found everywhere, and builds usually in pine or cedar trees.

The bluebird belongs to the family known as "rock-inhabiters," and is the only species found in the Eastern States.

The white-bellied nuthatch: color, above, ashy blue; top of head and neck, black; under parts and sides of head to a short distance above the eye, white; bill stout. Length, about six inches.

This bird is a frequent winter visitor, and it regularly breeds as far south as Massachusetts. It is more often seen than the red-bellied nuthatch, which is only $4\frac{1}{2}$ inches in length, and whose color is above, ashy blue; top of head, black; a white line above and a black one through the eye; chin, white; rest of under parts, brownish rusty.

The nests of both species are built in holes in trees, or stumps, usually excavated by the birds for the purpose.

CHAPTER III.

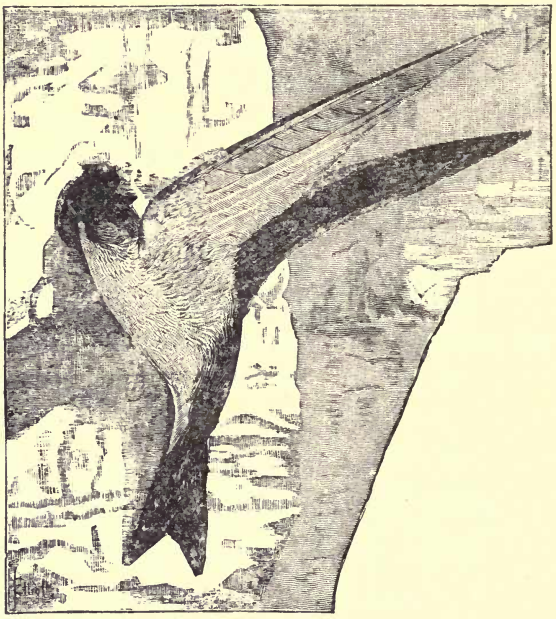
THE SWALLOWS.

My third lesson was given at the house of Ralph Upton. (Did I say that we met at the home of each pupil in turn?) Ralph, being an only son, has a room full of toys which were very distracting. Sidney wound up the music box at once. Johnny began to draw pictures on the transparent slate. Tom seized a piece of chalk, and drew portraits of all the bird class and their teacher on the blackboard, while the rest of the children were soon immersed in picture books. At last I managed to get the toys piled up on the shelf, pocketed the chalk, and called my class to order by separating the boys, who were crowded together on the sofa so that they looked like nothing but a tangle of legs and arms. Then I began to talk very fast, and soon had them so interested that they forgot to look for further distractions. My subject was The Swallows.

"Five kinds of swallows there are, that live near us, and one that is not really a swallow though it is called so. Can any one name them?"

Chimney-swallows and barn-swallows were the only ones my class had heard of.

"Have you never seen the bank-swallows' holes in the sand along the river? The bank-swallow is grayish brown above and white beneath. Don't you



BANK-SWALLOW.

wish you could see it sometimes, tunnelling its way into the bank several feet before it scoops out a room for its nest? How do you suppose it goes to work? Does it dig with its feet or its bill? It is a curious thing, is it not, that although the sand is quite soft

and yielding sometimes in the places it chooses, it never seems to cave in on the birds. What a snug place it is for the young ones where no hawks can get them!

"After the old birds have taken so much trouble to make a safe home for their babies, you would not think boys could be so mean as to dig into their nests, would you? The next time we walk to the river we will see if we cannot spy the bank-swallows skimming about over the water for insects.

"The chimney-swallow is really a swift, but it looks and acts so much like a swallow that it is called one. Where do they build?"

"In the chimneys," shouted one and all.

"What did they do before there were any chimneys to build in?"

That was a poser.

"Guess there weren't any swallows then," suggested Johnny.

"Oh yes, there were. They made their nests in hollow trees; but when men came and built houses, the swallows found out that chimneys were more to their taste, though why they like them better I cannot see. They always fly about in the air, above the houses and tree-tops, catching insects. They fly so fast and light so seldom, that it is hard to see their

colors, but there are other ways of knowing them. You can recognize them by their short tails, though, if you have noticed the swallows, you will see that they all fly differently, and you can almost know them by that. Did any of you ever see a chimney-swallow close by?"

Lois had been waiting impatiently for an opportunity to speak. "I have; I have. There was a nest fell down our chimney. Papa opened the fireboard and put his hand in — I don't see how he dared to — and pulled out a nest with three little birds in it. He most dropped it, though, and I wondered what made him look so funny. He gave me one bird to hold and said it would not hurt me. So I took it, but I thought it had pins in its tail, and I screamed; its tail-feathers are sharp just like pins, and it was all black and gray, just as if it was covered with soot and ashes. They were quite big birds; we took them out doors, let them go, and they flew away."

"The pins in the tail, Lois, were to help it climb. Did you notice how small the feet were? They say it never lights on trees or on the ground. How do you suppose it gets the sticks for its nest? I know you cannot guess, so I will tell you. The birds look about till they find a dead tree or branch; they then fly against the twigs, snap them off, and carry them

away. They glue the twigs together and fasten them to the bricks with saliva from their mouths. Sometimes the rain gets to the nest and softens it so that it falls down the chimney. Then, you see, if the young birds are big enough, they climb up again by help of the pins in their tails.

"The largest and most beautiful swallow is the purple martin, which is a glossy dark blue, with violet and purple tints. There used to be a colony of them in the belfry of our church. On Sundays, when the organ played, they chattered so loud it made a great disturbance. I never could find out whether they liked the music, or were afraid of it, when they made such a din. I like to imagine they enjoyed it, and were trying to sing the hymn when they joined their voices with ours. The martins usually build in boxes which people put up for them, and they are nice, though noisy, neighbors.

The white-bellied, or, as he is sometimes called, the bluebacked swallow, builds in the martin boxes or holes in trees. These birds have blue backs, with greenish lights on them, and are white beneath. The next time you see any martin boxes, you must notice whether the birds building in them are dark colored all over, like the martin, or white beneath, like the white-bellied swallow.

"There are two kinds of swallows that build around barns. The one that builds inside, on the beams, or under the rafters, is called the barn-swallow. He has a beautiful dark-blue, shining back, and a forked tail. He flies like the wind. His nest is made of grass and mud; I have seen him dart down and seize a feather, on the wing, to line it with. The other plasters its nest outside, under the eaves, and so we name it the eaves-swallow."

BARN-SWALLOW.

"There are lots of them on Uncle Daniel's barn," remarked Cicely.

"Then I suppose you have seen them getting the mud for their nests?"

No; Cicely had not seen them, neither had any of the others.

"Where do they get it, Miss May?"

"They usually get it in the road after a rain; though if it is very dry, they sometimes go as far as the river. I have watched them many times after a shower. They light in the mud and flutter their wings to keep from sinking while they fill their

beaks full. Then they make a nice mud house with it, and put some straw inside, and leave a round hole for the door just large enough for an entrance. Come, let us go down to Uncle Daniel's now, and see if the birds are at work."

Hats and caps were on in a twinkling.

"Are the boys going with us to-day," I said, looking from one to another, "or is base-ball more fun?"

"I guess we'll go to walk to-day," said Tom. Johnny, who always told everything, blurted out, "Our mothers told us, if we couldn't go to walk and behave ourselves, we needn't go to the class at all. And we liked to come to the class, you know, all except Bertram. He says he doesn't have half holiday enough anyway, so he's gone fishing."

We walked down the street, two and two, all in proper order. Uncle Daniel's barn was not far from the road, and we could see the swallows darting back and forth. "Oh, pshaw!" pouted Kate; "it isn't wet at all in the road, so we can't see them get the mud."

As we came to the barn and looked up under the eaves at the crowded mud nests, Lois was the first to exclaim, in a disappointed tone, "I don't see any long necks to their nests such as you told us of."

Cicely said "they were not half so queer and

pretty as the picture in Audubon showed." As I had never looked at the nests close by before, I was not prepared for the change which the birds had made. In old times these swallows built on cliffs, whence they were called cliff-swallows, and the long gourd-like necks were needed for protection of the entrance to their nests; but the eaves now supplied protection, and the birds were wise enough to leave off the unnecessary neck. This I explained to the children and showed them how wise the little creatures were.

Under the eaves of the long barn we discovered a few new nests, some old ones, and some partly completed. In some of the new nests we could see birds' heads, their bright eyes peeping at us, the white crescent-shaped mark above the bill showing distinctly.

"Now you can see, children, why the scientific name is *lunifrons*, which means moon-front."

Some of the birds were startled at the merry chatter below them, and slid out of their nests and flew away. As they went, we caught sight of the chestnut color on rump and throat.

Uncle Daniel came to see what was the excitement. "Oh, those birds!" he said. "I've often wished they would clear out and go somewhere else.

They used to build on the old barn, but just as soon as the new one was made they all moved over to it. I didn't like it much to have them spoil the looks of the new paint, so as fast as they plastered up a nest I'd knock it down. But they stuck to it, and finally I had to let 'em have their own way. I think I should miss 'em now, they've been around here so long. I like to hear 'em twittering up there. One fall a pair of 'em stayed long after all the rest had gone south. I used to wonder if they meant to stay all winter. Finally, I noticed that they kept going to one of the nests. So I got a ladder and went up there, and what do you suppose I found?"

The children were looking up in his face with excited eyes.

"Oh, I don't know," said Lois, in a half-whisper.

"I know," said Cicely, who had heard the story before; "'twas a young bird caught in the nest."

"So 'twas! how did you know? It had a hair wound tight around its leg. Just as soon as I had loosened it, it flew away, and that was the last I saw of 'em."

"Thank you for the story. We will count the swallows among our special friends after this, won't we? In some foreign countries people are so glad to see the swallows when they come back in the spring

that the children go from door to door begging gifts for the birds.

"They say, —

"The swallow, the swallow,
Upon you doth wait;
An alms-man and suppliant,
He stands at your gate;
Let him in then, I say,
For no graybeards are we,
To be foiled in our glee,
But boys who will have our own way."

CHAPTER IV.

WOODPECKERS.

THE day we met at Tom's house we talked about the woodpeckers. Ralph said he had a stuffed one at home, so, as he lived close by, I sent him after it. When it came, I found that it was a golden-winged woodpecker, the largest kind that is common. It was much admired by the children for the beauty and variety of its markings. They did not think they had ever seen one before. I held it up for them to take a good look at it, then put it behind me and bade them describe it. This was excellent practice, and was almost as much fun as a guessing game. Its markings were so varied that it was difficult to remember them. Blue-gray on the crown, with a red, crescent-shaped spot on the back of the head, cinnamon-colored throat, with black on the breast like a necklace; under parts, with round black spots, and the under side of the wing and tail feathers golden-yellow; a dark back with black markings. What a handsome bird it is!

"This white spot on the rump as large as a silver dollar," said I, "shows very plainly when it flies, and

that is one way by which you may know the bird. Another way to tell the woodpeckers at a distance is by their flight. They all go up and down, so, in regular scallops. This golden-wing has a great many names — more, perhaps, than any other kind of bird. One is 'high-hole,' because he makes his nest high in the trees. Another is 'yellow-hammer'; another, 'flicker'; and yet another, 'wake-up.' The last two are from the call it makes. Have you never heard it — '*wake* up, *wake* up, *wake* up,' very fast and loud?"

GOLDEN-WINGED WOODPECKER.

"Wake up, wake up, wake up," repeated the class in chorus. "We shall know it now when we hear it."

All the rest of the afternoon Johnny was saying "*wake* up, *wake* up, *wake* up," to himself.

"See what a strong bill this bird has! All the woodpeckers make holes in trees for their nests. There are two other kinds that are common, and they look a good deal alike, — the hairy and the downy.

They are both barred with black and white, and the male of each has a red patch on the back of its head. The hairy woodpecker is larger than the downy, which is quite small, and it is chiefly by the difference in size that you may know them, although the hairy may also be known by a broad white stripe down the middle of the back."

"I think, Miss May," said Lois, "that there's a downy woodpecker making a hole in the maple tree near Cicely's back door. It looks as you say, and the bird is not very large."

"Is that so? Isn't that nice? Have you seen it, Cicely?"

"No'm, I haven't noticed it. I knew there was a lot of chips on the walk, but I didn't know what made them."

"A pair of downies," said I, "came to build in an apple tree near our house this spring. The dead branch which they had selected was in sight from our sitting-room window, so that we often watched Mr. Downy at work. How he made the chips fly! He made a round hole just large enough for an entrance. Then he went down deeper and deeper into the limb, until at last we couldn't even see the tip of his tail as he worked. Mrs. Downy sat around and watched him admiringly. It took three weeks to

finish the house. The day it was done a pair of English sparrows, who had been waiting all this time, set upon Mr. Downy and his wife. All the other English sparrows in the neighborhood came to join in the fight, and as there were no other woodpeckers to assist, poor Downy was having a hard time of it, when we heard the commotion and came to the rescue. Downy was fighting bravely, but in such an unequal contest he was sure to be beaten. We brought long poles and waved them and threw things at the sparrows until they went away.

"But they came again and again, so often that it would have taken every moment of our time to keep watch, and at last the downies became so discouraged that they went away. We were so angry at the sparrows that my father got a ladder and went up and plugged up the hole. He said 'the sparrows should not have it, anyway.' They were very mad when they found that they could not get into the house they had stolen, but finally they, too, left the scene. For a week all was quiet, but two days ago we heard a familiar tapping in the apple tree. We ran to the window, and there was Mr. Downy sounding the limb at different points. He found that the plug which had stopped his hole was of too hard wood for him, so he began to dig just below it, inclining the passage up-

ward to meet the first entrance. In an hour's time he had disappeared within. We could see the chips flying out as if he were sweeping with his tail.

"The sparrows are now building their nest somewhere else, so that we think our friends can go on with their housekeeping unmolested."

"Where are we going to walk?" was the question as we stood on the doorsteps. It was decided by seeing some swallows skimming over the grass near a shed in a field not far away. Thither we went, and found that they were barn-swallows. We could see their shining blue backs and long forked tails.

Sidney was lucky enough to see one dart into an opening near the peak of the shed. The children raced away to the shed, and I arrived there in time to help Sidney on to an old wagon, where the rest of the class had already climbed. From this perch we could see the rafters, and there, firmly fastened to the lower side of one of the beams which upheld the roof, was a barn-swallow's nest. The old bird was clinging to it, feeding the chittering young ones.

"My! I'm tho glad I thaw that bird fly in here. Aren't you, Mitheth May?" exclaimed Sidney.

"I guess we are all glad," said Lois and Annie and Kate, all in a breath.

After we had watched the old birds come to the nest a number of times, we started up the street.

"Let us go into the meadows by the upper road," said I, "and walk along the bank of Mill River, and come out on the lower road. Will that be too long a walk?"

"No, no! That will be jolly!" cried all.

They were not allowed to go to the river alone, so it was a great treat.

Johnny was lagging far behind. I think he was planning to play truant, and join Bertram and some other boys who were playing ball in the street.

"Johnny," shouted Sidney, as loud as he could, "come on. We are going to Mill River. Hurry up!"

Johnny ran to join us, with no more thoughts of ball.

We walked along the rough bank, under the shady trees, now stopping to hear the merry bobolinks in the distance, now watching the robins and flycatchers. On the way Johnny had a fright; for he saw, hoeing in a field ahead of us, a man that he was sure was Mike Milligan. Mike was a poor-looking creature, with a red face, wicked eyes, and only two teeth in his head; and since the time when he told Johnny he was going to swallow him, the boy had always been afraid of him.

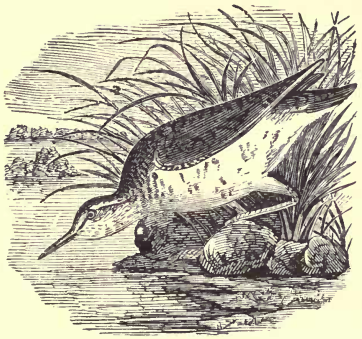
So he tried to persuade us that we wanted to turn about and go back by the same path we had come. The other boys said Johnny was afraid, but Johnny said, "No, sir." I noticed, however, that he kept close to us and said nothing until we were well past the field where Mike was working.

We saw few birds close by on this walk. It was not what the children had learned to call "a good bird day." On some days, you know, there seem to be twice as many birds as there are on other days, and they are much tamer. However, Johnny, while crawling through some bushes, saw a small brown and white bird running close by the water, and came to call us. He said, "He ran along, jerking up his tail in such a funny way. Just so," showing us with his hands how it went. We tiptoed back; but our bird flew away, looking much larger as he spread his long wings. As he went, he called "peet-weet, peet-weet."

"Good!" I exclaimed. "Now you've seen the little sandpiper that comes often along our rivers. It has two common names. One is 'tilt-up'; you can guess why that is, and the other is 'peet-weet,' from its call. It makes its nest on the ground, and the eggs, which are light brown with black spots, are so near the color of the earth that you would have hard

work to find the nest, unless you scared up the old bird from it, right under your feet."

"I'm going to find one before the thummer's over," said Sidney.



SANDPIPER.

"Yes, if you can," said Tom.

"Sidney will see a great many more things than you do, Tom, unless you look sharper."

"Can't see birds when there aren't any to see."

"Yes; but there are almost always birds to be seen somewhere, if you are looking for them. Remember that."

"What's that noise?" said Tom, to change the subject; "sounds like a rattle. Wonder who's making such a racket?"

"Steal along by those bushes and see. I think it is a bird."

"I don't believe it," said Tom, as he rushed off. He made such a commotion, breaking through the alders, that the owner of the voice, a large blue and white bird with a thick bill, flew directly over our heads, rattling as he went.

"Ah! it is a kingfisher. We must have disturbed

him fishing. He digs a hole from four to six feet into the river-bank for his nest. The Greek name for the kingfisher was halcyon. They used to believe that the bird made its nest on the water, and that while it was brooding the sea was always calm."

"That's the bird for me," said Tom. "We've seen something worth while to-day."

KINGFISHER.

FOR THE TEACHER.

The hairy woodpecker is nine inches long and fifteen in extent. It is so named because the nostrils are hid under thick, bushy, recumbent hairs or bristles; under the bill are certain long hairs thrown forward and upward.

The downy woodpecker is 6¼ inches long.

The golden-winged woodpecker is about 12½ inches in length. Its other names are, clape, high-hole, pigeon-woodpecker, flicker, yucker, Harry Wicket, and wake-up.

The yellow-bellied woodpecker is irregularly distributed as a summer visitor. Its general colors are black above, much

variegated with white; crown, scarlet, bordered by black on the sides of the head and nape; a streak above, and another below the eye, and a stripe along the edges of the wing-coverts white; a triangular broad patch of scarlet on the chin, bordered on each side by black stripes which meet behind and extend in front into a large quadrate spot on the breast; rest of under parts, yellowish white streaked on the sides with black. Length, 8¼ inches.

The large pileated woodpecker is found in thickly wooded districts. It is about eighteen inches long. Its general color above is dull greenish black; entire crown, from the base of the bill to well developed occipital crest, scarlet red; a white streak below the eye; under wing-coverts and sides of body tinged with sulphur-yellow.

The red-headed woodpecker is found abundantly in some parts of the country, but it is not common in New England. Its head and neck are all round crimson red, margined by a narrow crescent of black, on the upper part of the breast; back, primary quills, and tail, bluish black; under parts, generally, a broad band across the middle of the wing and rump, white. Length, 9¾ inches.

There are several other species of woodpecker mentioned as rare. The habits of all are similar. They excavate holes in trees for their nests. Their food is chiefly insects and grubs, varied by fruit and Indian corn.

The spotted sandpiper is widely spread through North America, every pond or stream having two or three pairs breeding on its shores. It may be described in a general way, as brownish olive-green above, spotted with black; beneath, white, spotted with black; outer tail-feathers, primaries and secondaries, tipped with white.

The sandpipers all have long slender bills, and rather long legs. They build their nests on the ground, and search for their food, which generally consists of the larvæ of aquatic insects, along the edges of salt or fresh water.

The belted kingfisher. Head with a long crest; above, blue; beneath, pure white; a band across the breast, and the sides of the body under the wings, blue like the back. The female and young, with a chestnut belly-band, and the sides of the same color. Length, about 12¾ inches.

CHAPTER V.

THE WREN.

"I saw Billy Wren, this week," said I, as we gathered for our fifth lesson, at Johnny's and Sidney's house. "Do you know him? He is a jolly fellow, and he was looking for a tenement."

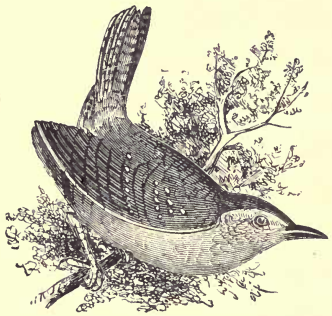
"Billy Wren," giggled Johnny, nearly falling off his seat. "Billy Wren, what a funny name!"

"Yes, it is a funny name for a bird, I know; but it just suits him, for he is a funny little bird. He is shorter and rounder than the chippy, and would answer very well to the description of a 'little brown bird.' He is as lively as a cricket, and goes hopping about, jerking his tail, and scolding if he happens to see a cat. He builds in holes in trees, or in bird-houses. I have brought a pattern of the kind of house he likes the best, thinking that you boys might like to make one. You see, it has four sides and a sloping roof, just like our house, and a front door-step. The door is a round hole, not more than an inch in diameter, because if it is larger, the English sparrow can get in, and drive poor Billy away.

Billy doesn't seem to care for windows, and he even builds up his nest half across the doorway, so that very little fresh air gets in.

"We have heard a wren singing in our neighborhood for several days, and at last my father made a house like this, and nailed it up in the pear tree near the door. It was not half an hour before Billy found it. He seemed quite delighted, flew on to the roof, then on to the doorstep, 'peeked' into it, and all around, and then tried to go in. But, — was it not too bad? — the door was not quite large enough! You see, we were so afraid the hole would be too large that we had made it a little too small. Billy tried it several times, but at last had to give it up and go away. Just as soon as he was gone father went up and made the entrance a trifle larger. It was not long before Billy came back again, acting as if that was such a nice little house he couldn't bear to give it up. How surprised he was to find that he could enter with ease! He popped in and out a half-dozen times as quick as winking, as if to say, 'Dear me, I never saw a hole grow as this one does! I wonder if I made a mistake about it before? It's a snug little house. Just my size, and I like it.' Then he went up on the roof and sang a song. After that he went inside and picked up every chip, brought them

out, and dropped them overboard. Two days after, he brought Jenny Wren to see the house. 'Just the prettiest, neatest cottage that ever was,' he said. But Jenny, for some reason or other, did not like it; we think probably because it was too near the house, and now they are building in a retired corner of the orchard." Then I told them the story which is found in the next chapter.



WREN.

"Now, I have something to show you," I said, opening a box, which the class had been eying with curious glances, all the time that I had been talking. I held up a bright red bird, with black wings. "I found it dead in the woods. Isn't it handsome? It is a scarlet tanager. Can you remember that name? A pair built in the woods behind our house last summer, and we used to see them going a long distance to get silk from caterpillars' webs to line their nests. The female is yellow and brown, with no red on it at all, so that you would not know it was the same kind of bird."

"Pleath, Mitheth May," lisped six-year-old Sidney (he always called me *Mrs.* May), "pleath, Mitheth May, mayn't I have the pretty bird to keep?"

"I am sorry I cannot give it to you, Sidney, but it is beginning to spoil now. I only kept it to show to you, then I thought I should throw it away."

"Let's bury it! Let's bury it now!" shouted Johnny. "Come on, we are going to have a funeral in our garden."

Away to the garden we went with a rush. Johnny fetched a trowel, and Sidney the big coal shovel, and they both began to dig as fast as they could, while the older boys who could not get a shovel, found fault with their work, and teased for a chance. When the hole was deep enough, I handed over the bird wrapped in a paper.

"Where's the box, Miss May?" asked Johnny, much grieved. "I can't bury it without a coffin."

"Oh yes, you can," said Tom. "This is well enough, and the box is at the house. We can't wait. Hurry up!"

"No, I can't bury it without a coffin. Must I, Miss May? You make them wait."

He put the bird in my hand, and ran to the house as fast as his short legs could carry him, to get the box.

When the tanager was safely buried, and the grave decorated with flowers by the girls, we started for a walk to the pasture. The boys' four-year-old sister

Alice asked if she might go, too, and was very happy when I said that she might. We walked down the street, stopping a moment to look at the swallows on Uncle Daniel's barn, and then across a field, going single file in a furrow, so that the farmers would not scold us for treading down their grass, crawled through a fence, and were in a delightful over-grown pasture. First, we sat down on a bank, so that Alice might rest. A few feet in front of us was a thicket of bushes. Into it came hopping, chipping, and scolding at us, with a mouthful of dry grass for its nest, a tiny summer yellowbird, so near that we could see the faint red streaks on its breast.

"See 'ittle canary," whispered Alice.

"Go away, go away," chipped the bird. "Oh dear, those people won't move, so I shall have to go to my nest, anyway," and she dived into a bush. In a moment she flitted out again; we peeped in and saw the dainty nest half made. Through the tangle of hawthorn and alder bushes we scrambled, lifting Alice over the rough places. Lois fell, and nettled her wrist badly.

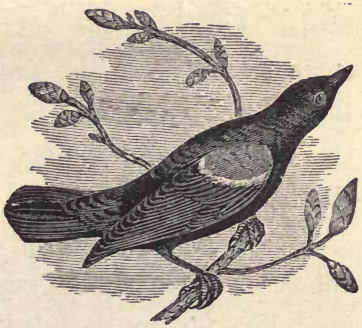
"Look out," I called; "do not touch the poison ivy. That three-leaved vine is it."

"How does it feel to be poisoned by it?" asked Johnny.

"Oh, it itches and burns so, that you would not want to try it more than once."

"I gueth I mutht have touched it," said Sidney; "my neck itches now. Don't you think I have, Mitheth May?"

"No, I don't, my boy; you would not feel it so soon. Now run along, and let us get out of this."



RED-WINGED BLACKBIRD.

The open part of the pasture, into which we soon came, was full of scrubby, wild apple trees in bloom; the grass was blue with violets in places, or white with innocents and anemones. Here the children had the happiest time, gathering handfuls of flowers. We discovered a robin's nest in the low crotch of an apple tree, where we could easily look into it, and see the four very blue eggs.

The red-winged blackbirds flew overhead, displaying their gay shoulder knots, and showing much alarm at our nearness to their nests. But they were safe enough, for the bushes which held their homes stood in hollows full of water.

"There's a canary, sure," cried Johnny, as a yellow bird, with black crown, wings, and tail, flew past us.

"They sing something like a canary, too," said Lois, "so we always called them wild canaries. What are they really?"

"They are goldfinches. Sometimes they are called thistle-birds, because they are very fond of thistle seeds. Later in the summer we can see them in small flocks, after the nesting season is over. See them now, flying up and down, up and down, like the woodpeckers, saying, as they go, 'cheet-a-chee, cheet-a-chee.'"

After a joyous hour in our wild retreat, we came out at the farther gate, near the bridge. Here I said good by; for my path led up the hill, and theirs in the other direction. They all declared it was the best walk they ever had.

FOR THE TEACHER.

THE WREN FAMILY.

The common and familiar wrens are much alike in disposition, manners, and habits; the house-wren may be taken to typify these.

The house-wrens are sprightly, fearless, and impudent little creatures, apt to show bad temper when they fancy themselves

aggrieved by cats or people, or anything else that is big and unpleasant to them; they quarrel a good deal, and are particularly spiteful towards martins and swallows, whose homes they often invade and occupy. Their song is bright and hearty, and they are fond of their own music; when disturbed at it they make a great ado with noisy scolding. Part of them live in reedy swamps and marshes, where they hang astonishingly big, globular nests, with a little hole in one side, on tufts of rushes, and lay six or eight dark-colored eggs; the others nest anywhere, in shrubbery, knot holes, hollow stumps, and other odd nooks. Nearly all are migratory; one is stationary; one comes to us in fall from the north, the rest in spring from the south. Insectivorous and very prolific, laying several sets of eggs each season. Plainly colored, the browns being the usual colors; no red, blue, yellow, or green in any of our species. — COUES.

Summer yellowbird: Color, golden yellow; back, olive yellow; breast and sides streaked with orange brown; wings and tail dusky, yellow edged. This little bird is one of the large family of warblers, many of which are brilliantly colored. Few warblers nest with us, but most of them can be seen in May as they are journeying northward. I have seen ten different species in one season, flitting about the apple trees in bloom.

The red-winged blackbird is referred to in the note to Chapter VIII.

CHAPTER VI.

BILLY WREN'S HOUSEKEEPING.

It was house-hunting times, and Billy Wren was in search of a tenement. Billy Wren was a gay young bachelor, and it was a little surprising to his neighbors that he thought of settling down, he was so fond of a roving life. Then he was so particular about his house. Big enough for a family he said it must be, and not a bit *too* big. When he inspected the hole in the apple tree Mr. Bluebird asked him why he didn't ask Mrs. Wren what she thought about it.

"There isn't any Mrs. Wren," said Billy, pertly, putting his head on one side. "There isn't going to be any Mrs. Wren till I know where I'm going to keep her."

Now under the eaves of Farmer Miflin's corn house was the perfection of a cottage. It belonged to the Miflin children, and they rented it for a song a day. Mr. Billy spent a day in examining it, tried a few sticks in it to see how it would look when furnished, and finally concluded to accept, at the owners' terms.

He said that he had rarely seen a house that he liked so well, for the door was just exactly large enough for him to go through, and that was the great trouble with tenements in these days, the doors were so large that you never could tell who would be coming in. Early the next morning he put in some furniture, — pine twigs and dried grass, — and after having spent some time in arranging it, at last had it just to his mind. Then he went out to advertise for Mrs. Wren. How do you suppose he did it? Having selected a twig on the apple-tree, where he had a good view of the country round, he first gave a short song, as payment of his rent, then went on to tell of himself and his fortunes. All day he sat and sang without a sign of success; but he was not discouraged.

"Of course," he said to himself, cheerfully, at night, "one couldn't expect such good luck the first day."

So the next morning he re-arranged his furniture, and went at his trilling again.

"Really," he exclaimed, as the second day passed and never a sign of a young lady wren, "this is strange; but, after all, it isn't so bad. This apple tree is a nice place to sit in the breeze, with the bees humming around. I don't think I'd mind singing a week."

At the end of the week, however, he couldn't understand where the Wren family kept themselves. He supposed they must be taking a vacation down by the river or up on the hills; but he did think the first of June was time for them to return to their old haunts.

But still he sang as gayly as ever, "Oh, where art thou, my Jenny?" and kept as light a heart as he could. The next morning he was rewarded by seeing a little brown bird flitting coyly about in the outskirts; so he politely invited her down to see his humble dwelling, and was as attentive as could be. She, however, was hard to please, said his house was small and stuffy, and that she couldn't think of liking a bird who put on so many airs, and directly went away.

The Miflin children, who had been watching all this, were very sorry for their little friend; but he said it was foolish to care about such a bold-faced jig, and tuned up again. Another week of throat music and another cousin turned up.

"Patient waiters are no losers," warbled Billy, as Miss Jenny, quiet and modest, said shyly that she thought the cottage was very cozy, and she would like to stay. Then what a jubilee overflowed from the brave little bird's heart! It did not matter to

him that his bride gently but decidedly removed every stick so carefully put in by him, and brought others to suit herself. He eagerly sought other sticks which he thought would please her better; but she promptly threw these, too, on the ground, as if to say: "What do men know about housekeeping!"

So he finally let her do it her own way, and sat on the tree near by and sang as if his heart was bursting with joy. This pleased himself and Mrs. Wren and the Miflin children; and, as even the neighbors approved, it was called a very happy match.

One thing only did Dorothy Miflin criticise. She said she thought that little enough fresh air could get in through that very small hole which served as door and window, without building up the nest half across the opening. However, as Mrs. Wren paid no more regard to her than she did to her husband, nothing could be done about it.

Soon there were little birds in the nest, and so gay Billy Wren became a man of family, wrote his name William Wrenne, Esq., and spent most of his time, when he was not handing in a fat green worm to the children, in scolding the yellow cat, Cæsar.

Cæsar took a more than common and neighborly interest in the family. He would climb up on the roof and, hanging over the eave-trough, lie there by

the hour, stretching out a long arm toward the nest (which fortunately he could not reach), unmindful of the threats and persuasions of Miss Dorothy, who stood anxiously below.

It has been noticed that the smaller the house the more children there are in it. It was a great day in the Miflin's back yard when the Wren family came out. Little Dorothy and Brother Ben and Cæsar had spent much time wondering how many babies there were; and as the door was so small that only one could stick out a head at a time, there were no means of knowing.

It had been noticed that Father and Mother Wren had not been to feed their hungry brood that morning, but stayed back in the apple tree.

The biggest brother had been looking out of the door for some time, waiting for his breakfast, and thus shutting in all the other brothers and sisters, who were just as hungry as he was.

All at once there seemed to be a revolution in the nest, a sudden push from behind, and the greedy brother was outside on the piazza. But there was another one in his place.

All the morning what an anxious time it was! One after another being pushed out by those behind was coaxed over to the tree by the old birds, and led

by short flights out of Cæsar's reach. When the sixth bird — and every one was larger and plumper than Mr. Wren Senior — had made his appearance from the tiny house, the wonder of the Miflins knew no bounds.

"They must have been squeezed awfully," said Dorothy, "for Mamma Wren used to go in, too, and that made seven!"

"Pooh!" replied Mr. Wren, tossing his head, "that's nothing to what we could do if we tried."

CHAPTER VII.

SCREECH-OWLS.

"I HAVE such a nice story to tell you this afternoon," I said, on the pleasant June Saturday when we met for our sixth lesson. "But first I want to ask how many of you have seen an owl?"

"I've seen lots of pictures of them," said Tom; "and I could draw one if I had a piece of paper."

"I've seen them made out of peanuts," whispered little Martha to me. Martha was too shy to speak out loud in the class, but I know she paid attention, for she always gave her mother a full account as soon as she got home.

"I saw one once," said Cicely; "at least, I think 'twas an owl. 'Twas a big gray and white bird, and 'twas in a milliner's window with a white cap on its head. I presume most likely 'twas a stuffed one."

"Well," said I, "I think you all have some idea of how an owl looks, and you know they fly in the night. There are a great many kinds, and the one I am going to tell you about is one of the smallest. It is called the little screech-owl, but the scientific

name in the books is *Megascops asio*, so I will call him Mr. Scops, as that name suits him very well.

"It was a lovely, balmy night last April when Mr. Scops sat on the fence and sang what he thought one of his sweetest songs to his little bride. The white mist lay along the river, and came creeping up in all the hollows. A crescent moon shone faintly on the pair as they bobbed and courtesied to each other on the fence. I dare say you and I would not have thought much of Mr. Scops's voice. It sounded as mournful as if he had lost his best friend. You would think he was in the depths of sorrow, but he was really very happy, for he was telling Mrs. Scops that he had just discovered such a fine, large hole up in the elm tree close by. Mrs. Scops was afraid — just a little bit afraid — that it was not safe enough, being right over the road where people were all the time passing. But Mr. Scops said (very wisely, as he thought) that owls could see by night and not by

SCREECH-OWL.

day, whereas it was just the other way with men; they could see by day and not by night. So he thought they were in no danger of being seen, and 'Mrs. Scops was sure he must know best.'

"All the evening Mr. and Mrs. Harwood, who lived in the house behind the fence, had been hearing strange noises. Mr. Harwood was sure it was a dog whimpering, but Mrs. Harwood was equally certain that it was a baby crying. At last, Mr. Harwood came out to see what was the matter. As he opened the door, the two birds flew softly from the fence up into the elm-tree; for owls have such downy feathers they can fly without making the slightest sound. Mr. Harwood looked up and down the street and listened for about five minutes. Then he went into the house and said they had both made a mistake. There was no dog, no baby, no anything outside except fog. Meanwhile, the two big-eyed birds went up and looked at the hole in the dead branch of the elm. It had been made by some woodpecker, but the wood had rotted away till it was large enough for two or three families. Here, before long, were laid four round white eggs, and after that came four downy heaps with wide mouths. But no one knew of it, and no one saw the old birds come and go. The noises in the hollow branch grew louder night

after night, and the Harwoods began to say that they must be haunted; they never heard such strange sounds before. But the really perilous time came when the young birds pushed and scrambled out of the hole, and climbed from one bough to another all over the big tree. It was just after sunset, and not yet dark, when they did this. Their mother begged them to be quiet, but the more she cautioned them the louder they chattered.

"Now Some One was passing under the tree just as one of the owlets slid down a low hanging branch almost to the tip of it, which was only a few feet above her head. This Some One heard a strange sound. She thought it was the grating of machinery. She wondered if a lawn-mower could make such a noise. She stopped and looked all around. At last it seemed to be right over her head, and she looked up to see a strange creature scrambling up the rough bark. It looked like a ball of yellowish down, with a great round head and no tail at all. She hardly thought it was a bird at first, but hearing the same harsh sound repeated in different parts of the tree, she looked higher up and saw the old birds flying noiselessly back and forth. Whenever they came to one of the young birds there

was the greatest snapping of bills and grating and chattering. For several evenings this same person came to see the owl party. One rainy night they came out earlier than usual, and one of the old birds flew so near her that she could see the back was a rusty red color. By this she knew that they were screech-owls. I think the person that found those owls had a great piece of good luck, don't you?"

"'Twath you, Mitheth May," cried Sidney.

"Yes; 'twas you, Miss May, wasn't it?" shouted all the children at once.

"I wonder how you guessed! All who would like to see those owls hold up their hands."

Every hand was raised and voices too.

"Very well, then, we won't take any walk this afternoon; but you may all go home now and ask your mothers if you can't meet in front of Mr. Harwood's at sunset to-night. The birds may be gone, but they were there last night; and so I hope we shall see them."

At sunset we met at the appointed place. All was quiet, and the robins were singing their cheerful evening song. The children stared at the hole in the elm, and then began to walk about impatiently.

"How soon do you suppose they will come out? Isn't it most time for them now?" they repeated again and again.

"What is that little gray thing over on that door-step?" cried Lois, pointing across the street.

"Oh, it is the owl — and there is a cat coming round the corner!"

Ten pairs of feet stirred the dust in the road, and a triumphant shout urged me on.

"It's a teenty little owl, and he's tight asleep."

Drawn up in a fluffy ball sat the baby owl, with his eyes pinched oh! so close together, although the sun had been down for several minutes. But when Lois touched him softly on the back, he opened his great human-looking eyes suddenly, and snapped his bill in a way that made us all jump back. We heard an answering click over our heads, and looked up to see the mother owl swooping down at us from the branches of the maple, snapping her bill viciously, then retiring to the thick foliage to say, "Hoo! hoo!" in a soft but startled manner.

"What shall we do? We can't leave him here for the cats to get."

"You take him up, Miss May."

"Dare you touch him?"

"Oh, don't, Miss May. He will bite you."

I seized the ball of mottled gray down gently but firmly from behind, and carried it across the road, with the old birds sweeping back and forth close to our heads.

"What shall we do with him?"

"Let us put him up in the tree."

"Oh no, let us keep him."

"What! and sit up all night to feed him?"

"Oh, let us feed him now. Mrs. Harwood will give us some meat."

So some scraps of meat were brought and offered to little Scops, but he did not seem to know what they were. Then I opened his mouth and stuffed some meat into it, which he swallowed greedily.

"That's the way the old birds feed him. They fill his mouth, and all he has to do is to swallow. His bill is quite soft yet; he couldn't take hold of anything for himself."

"I do not see how he can snap it, if it is so soft," said Cicely.

"Nor I either. It sounds as hard as iron, does it not? Now let us give him back to his mother."

A chair was brought, and I reached up as far as I could and put his feet on the rough bark. He caught hold and climbed like a cat to the crotch of the tree, where we left him calling for his mother.

"Oh, wasn't it fun!" said one and all as they bid me good-night.

FOR THE TEACHER.

The owls are easily recognizable from their striking characteristics, chief of which are their cat-like eyes, and the disc of short, rigid feathers which encircle the face.

The horned owls are so called from erect tufts of feathers which somewhat resemble a cat's ears.

The great horned owl is from twenty to twenty-five inches in length, variable in color from nearly white to dark brown, usually with the upper parts dark brown, every feather mottled. It breeds in inaccessible places in deep forests.

The long-eared owl is somewhat similar to the preceding in color and habits, but is smaller.

The screech-owl is a horned owl. It is often called the mottled owl or red owl. A peculiarity of this bird is, that some individuals are a rusty red, some gray. Scientists are not yet agreed as to the cause of this difference of plumage.

The subfamily of gray owls is without ear tufts, and includes:

The barred owl: Color, brown and white, in wavy bars and stripes. Length, about twenty inches.

The Acadian owl, or saw-whet owl (so called from its note), is the smallest member of the family, measuring only $7\frac{1}{2}$ inches in length.

Among the day owls is the snowy owl, which is a rather common winter visitor in the Northern States. Its plumage is pure white, with frequently a few imperfect spots or bands of dark brown above, and a few irregular bars of the same below. The snowy owl hunts both by daylight and twilight.

CHAPTER VIII.

CUCKOO AND COW-BUNTING.

The Saturday before this lesson I asked the class to make a list of all the birds seen by them during the week.

"So I suppose you are prepared with a list as long as your arm," I said to Tom, while we were waiting for the girls, who were late.

"Birds were not very thick this week," replied Tom, "and I didn't have any time to look for 'em, either. I had to go to school," as he handed me a paper.

"Oh, what an excuse! Had to go to school! Where were your eyes before school, and after school, and on your way to school? Let us see what you have — crow, robin, rooster, sparrow, canary. Five birds; that is better than nothing, but I am afraid you will not be at the head of this class. Besides, we don't count tame birds, like the rooster and canary. Now, where's Sidney's list?"

"I thaw theven, Mitheth May," said Sidney, as he gave me his paper, on which the names were half written and half printed.

"Robin, crow, blackbird, chippy, woodpecker, blue-bird."

"And another one ath big ath a robin, all yellow and red and black. He came in our backyard, and got thome thringth to make a netht with. Thome-body thaid twath a golden robin, but I thaid I wath going to athk Mitheth May."

"Very well done, my boy; that was an oriole. Oh, here come the girls, all running except Martha, who is carrying something."

They burst in all out of breath. "Martha's got a bird! Martha's got a bird!" they shouted. "She found it this morning. It's all dead, though." Here Martha came in, with the bird wrapped in a paper.

"It's a real live dead bird, Miss May. When I opened our porch door this morning I found it right on our step. A real live dead bird."

"What is it? what do you suppose killed it?" they all inquired at once.

It was a long bird, with long wings and tail, brown above and white beneath, with a curved black bill, which was broken.

"It is a cuckoo, a black-billed cuckoo. It is a cowardly bird. Sometimes it sneaks up to a nest and eats the eggs, when the other birds are not looking; but it is ready to run the moment it is

discovered. I should not wonder if it was being chased this morning and flew against your house, Martha, so hard that it was killed by the blow. That is the only way I can account for the broken bill."

"I think I read somewhere," said Johnny, "that the cuckoo lays its eggs in other birds' nests."

"Not this cuckoo, Johnny. The European cuckoo does that. Our bird is a useful one, for he eats the tent-caterpillars that are so injurious to the apple trees, so we must try to forgive him for his taste for fresh eggs. We have a bird, though, that does lay its eggs in other birds' nests; it is called the cow-bunting or cow-blackbird. It is in size between a song-sparrow and a robin, and is of a rusty black color. It generally chooses a smaller bird's nest for the place to leave an egg. The poor little chippies very often have an egg imposed on them. The baby cow-bird is so much larger than the other birds in the nest that he soon pushes them out, then he has it all to himself, and all the worms go into his

CUCKOO.

great mouth. One summer, a chippy who built near our door, had one of these great, overgrown babies to take care of. He looked like a young giant, he was so much larger than his foster-mother. He looked large enough to take care of himself, but he would just sit and call for food, and his tiny mother would work all day to fill his big stomach. Now, girls, where are your lists of birds?"

Two or three had seven each, Lois had twelve, and Kate twenty-one.

"Why, Kate, did you see a peacock?"

"Oh, no'm. Did you mean just the birds I saw? I thought you meant the names of all that I knew."

So that counted Kate out, and Lois stood at the head of the class.

"You see," said I, "that you do not have to kill the birds to find out their names. It is a great deal wiser way just to watch them, isn't it?"

"If I had a bow'n arrer, I guess I could shoot a hundred birds," boasted Johnny.

"Yes; but would you if you could? That is the question. I hope you would not want to; but I don't understand boys. I don't see why, just because they are boys, they should like to be always killing things. When we think of the poor little birds, with the crows and the hawks, and the butcher-

birds and owls all after them, and the blue jays and cuckoos stealing their eggs, it seems a shame that boys must be added to their enemies. The birds of prey, as those birds that eat other birds are called, have to kill in order to live; but what a waste of life it is, when boys take to shooting birds just to show how smart they are, or collect eggs just to see how many they can get. It is not wrong for the crows and hawks to do such things, although it seems dreadful to us, but it is wicked and cruel for people to do it; and I wish I could make every boy ashamed of himself that ever did such a thing."

"I found a netht oncth, Mitheth May, all by mythelf; it had four little thpeckled eggth in it, and I never touched one of them."

"And besides being wicked in itself, you know it is against the law to kill singing birds or rob their nests."

This moved the older boys, and they began to protest "that they never, never did such a thing, and they never, never would."

"Of course not. I hope my bird class would know better than that. Now, my lecture's done. Come, let us go to walk."

"Boys are so horrid, aren't they, Miss May?"

said Cicely, as we set out; "they're always killing something. I wouldn't be so mean."

"I have seen little girls," said I, "and big ones, too, who wore birds' wings, and sometimes whole birds, on their hats. That seemed to me just as bad as for the boys to kill birds."

"Oh, but we don't kill them, you know," said Cicely, quickly.

"Somebody must kill them, though; and isn't it just as wicked to buy the wings of some one who has done it? How would you feel, if any one should kill your canary because the wings were pretty to wear on a hat?"

"Now you're catching it," said Tom, in great glee. "You are not any better than the boys, after all."

"Yes, now I have scolded both of you. I think it was only because you were thoughtless. I shall ask you to sign the pledges of the Audubon society. There are three of them: not to kill any wild bird, except to be used for food; not to destroy eggs or nests of any bird; not to wear any feathers, except those of the ostrich and domestic fowl."

"Feathers are awful pretty in a hat, but I suppose I'll have to give 'em up," sighed Cicely.

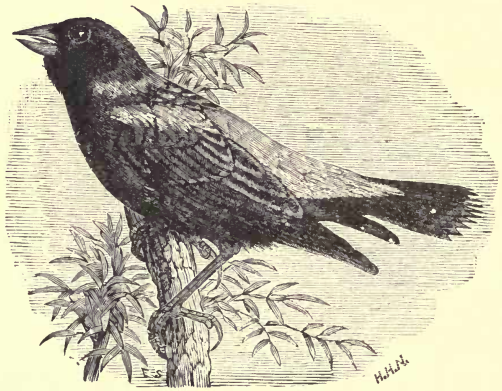
"I promise you I won't wear any more in *my* hat," said Tom.

"Will you take the other pledges, too, Tom?"

"I never did hit a bird yet, so I guess it's safe enough to promise."

"No, I don't want any such promises. I want you to agree not to *try* to hit them."

"Well, I'll promise not to hit them unless they get right in my way so that I can't help it," said



BOBOLINK.

Tom, who hated to say right out that he would do a thing.

By this time we had come to a row of apple trees along the meadow road. In the top of one of these a bird, about as large as a robin, was singing the jolliest song, the notes coming so fast that they nearly tripped each other up.

At the end of the song, he flew down to a tall weed and sat there swaying to and fro.

"All black and white, isn't he?" said Kate. "White on the back of his head and his shoulders and rump."

"Lookth ath if he had a bald head," said Sidney; "there he goth again."

The jolly bird flew over a grass field, singing as he went, poised a moment, then dived into the tall grass.

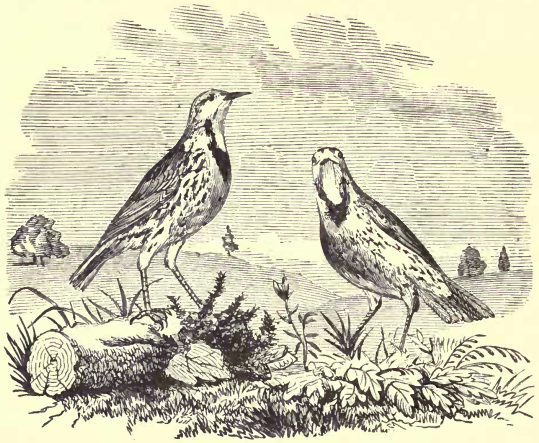
"It is a bobolink," said I; "don't you know the bobolink?"

"Bobolink, bobolink, spink, spank, spink, is what it says in the reading book," said Johnny. "Is this the bird it meant?"

"Yes, 'hidden and safe is that nest of ours,' he says, and he has probably gone to it now. But you need not think it is just where he dropped down; he is too smart for that. He will creep along under the grass to it, and you might hunt the whole field over and not find it; so we won't trample down the grass to look for it. There comes another one, and his mate with him. Yes, that yellowish brown bird is his mate, although she does not look at all like him. Did you ever think why the females are so much duller in color usually, than the males? It

is so that they need not easily be seen as they sit on the nest, or go and come with food for the young. It is all very nice to wear gay clothes, but it is much more dangerous for birds at least, for they would be so much more quickly seen by their enemies.

"The bobolink, the blackbirds, and the orioles all belong in the same family.



MEADOW-LARK.

"Another bird which builds in the grass is the meadow-lark. Perhaps you know him. He has a handsome yellow breast, with a black necklace, and is a little larger than a robin. He sometimes weaves a roof of grass for his nest and makes a winding covered passage to it.'

FOR THE TEACHER.

The family of starlings contains many familiar birds. They are bobolink, meadow-lark, orioles, blackbirds.

The general color of the bobolink (also called reed-bird and rice-bird) is black; the nape, brownish cream color; a patch on the side of the breast, back and rump, white; the outer primaries sharply margined with yellowish white; the tail-feathers margined at the tips with brownish ash. Its change of color in the autumn is described in the chapter on migration.

The meadow-lark is, above, dark brown; the feathers margined with brownish white; exposed portions of wings and tail with transverse dark brown bars; beneath, yellow, with a black crescent on the upper part of the breast; sides, pale reddish brown, streaked with blackish. Length, $10\frac{1}{2}$ inches.

There are two orioles.

The Baltimore oriole, called also golden robin and hangnest, is best known: Color, head all round and to middle of back, scapulars, wings, and upper surface of tail, black; rest of under parts, rump, and terminal portion of tail-feathers, orange red; edges of wing-quills, with a band across the tips of the greater coverts, white. Length, $7\frac{1}{2}$ inches.

The female is much less brilliant, the black of the head and back being generally replaced by brownish yellow.

The orchard-oriole is more rare in New England. It is of about the same size as the preceding species. Color, head and neck all round, wings, back, and tail-feathers, black; rest of under parts, lower part of back to tail, brownish chestnut; a narrow line across the wing, and the extreme outer edges

of quills, white. Like the Baltimore oriole, it has a loud, rich voice, and its song is longer and more varied.

Cow-blackbird, called also cow-bunting and cow-bird: Color, head, neck, and upper half of breast, light chocolate brown; rest of body lustrous black, with a violet purple gloss next to the head, of steel blue on the back, and of green elsewhere. Female, light olivaceous, brown all over, lighter on the head and beneath. Length, eight inches. It has a peculiar guttural note which cannot really be called a song.

Swamp blackbird or redwing blackbird: General color, uniform lustrous velvet black, with a greenish reflection; shoulders and lesser wing-coverts of a bright crimson or vermilion red. Female, brown above, the feathers edged or streaked with brown and yellowish; beneath, white streaked with brown; forepart of throat tinged with brownish yellow. Length, 9½ inches. They arrive early in the spring, and congregate in flocks in the tree-tops, uttering their well-known note of "quonk a ree."

Of the two grackles, the crow-blackbird, or purple grackle, is the more social in its habits. Color, head and neck, all well-defined steel-blue; the rest of the body with varied reflections of bronze, golden green, copper, and purple. Female similar and duller. Length, thirteen inches.

The rusty grackle is in general color black, with purple reflections. Female, dull brown. Length, 9½ inches. This more retiring bird is not uncommon in the spring and fall migrations, but is never common, and retires to high latitudes to breed.

While the blackbirds do considerable damage to the grain-fields in the fall, it should be borne in mind that they do great service in the spring by destroying harmful insects. Perhaps

the good done at one season offsets the harm done at another, — who knows?

The yellow-billed cuckoo is quite rare.

The black-billed cuckoo is abundantly distributed. They are similar in size and color, the most noticeable difference being in the color of the bill, which gives the name to each species. The black-billed cuckoo is described as follows: Color, bill, entirely black; upper parts generally of a metallic, greenish olive, ashy towards the base of the bill. Beneath, pure white, with a brownish yellow tinge on the throat. Length, about twelve inches. Its note is *tuk, tuk, tuk,* repeated very fast, or *kow, kow, kow,* more slowly. In the south it is called the "rain crow," as its call is said to predict rain.

CHAPTER IX.

FLYCATCHERS.

THE eighth meeting of our class was at Martha's house, and her five-year-old brother Robert was proud enough to come in and take his seat with the rest of us. He was very anxious to tell what he knew about birds and his sister, who sat beside him, had to whisper to him a great many times that he must keep still.

"There are three kinds of flycatchers, that I am going to tell you about to-day, and I will begin with the smallest. He is called the least flycatcher and is smaller even than the chipping-sparrow. He is a plain brownish gray, or grayish brown, above, ashy white on the breast, and tinged with yellow underneath. He sits on the fence and says 'chebec,' jerking his head back at the same time, then darts off to catch an insect. From this note he gets his common name of chebec."

Robert, feeling that it was time he put in a word, burst out, "I saw a little brown bird yest'day."

"What do you suppose he means by 'a little

brown bird'?" said the boys to each other, scornfully.

"I guess he means a chippy," said Martha to me, apologetically.

Robert subsided, and I continued my talk about the flycatchers.

"The next in size looks very much like the least flycatcher, but is as large as a song-sparrow. It comes early in the spring, and we are all glad when we hear it calling a girl's name —"

"Phœbe," said Lois.

"Yes, that is it; and when he is excited he raises a crest on his head. This bird builds on rafters under sheds, sometimes close to houses."

"A pair built under our back porch last summer," said Kate; "and they used to sit on the clothes-line all the time, jerking their tails."

"The largest flycatcher of the three is such a loud-spoken bird he cannot have escaped your notice. He builds in the tops of apple trees usually, and is always looking out for enemies. I call him the policeman bird, for the moment he spies a crow, or hawk, he gives the alarm, and, in a moment, a dozen or more of them are chasing the offender, pouncing down on his back, and tormenting him, till he is glad to get out of the way."

"Oh, you mean the king-bird," said Tom; "I did not know it was a flycatcher. It does look some like the phœbe, only larger. I saw one once chasing a crow, and he just lighted on the old crow's back, and took a ride."

"Yes; how excited they look with their crests up! If you had a king-bird in your hand, and should part the crest, you would find a flame-colored spot hidden by the outer feathers. I once had the good fortune to come close to two king-birds who were fighting, when that spot showed on one of them like a live coal. It is a fitting crown for a brave king of birds.

"There are birds of another family which catch insects, and are somewhat like the flycatchers in coloring. I refer to the vireos, of which there are several kinds. They are all nearly of the same size, a little smaller than the phœbe, olive brown above and grayish white beneath. They are slenderer than the flycatchers, have smaller heads, are more retiring, and have softer voices. Some of them have a sweet warble."

Robert had been looking at me intently for two minutes, and he now raised his hand.

"I know where a chip bird's got its nest."

"What's a chip bird?" asked Tom, in his most

superior tone. "I presume you mean a chipping-sparrow, don't you?"

Poor Robert looked so downcast that I hastened to tell him that he might show me the nest, and we all went out on the front porch to see it in a crotch of the trumpet-creeper that was trained upon the pillar.

Upper Fig. RED-EYED VIREO.
Lower Fig. CEDAR-BIRD.

"Shall we go to see Miss Mary Bradley's tame blue jay?" I asked, as we started up the street.

Oh yes, oh yes. They all wanted to see it, and would I please tell them about it. So, as we walked along, I told them how Miss Mary came to have it. Her brother found it on the ground in their yard, early one morning. It was a helpless baby then, could not fly at all, and the wonder was how it came there, for there was no nest near. Miss Mary put it in a basket, and fed it with bread and milk, and, as soon as it could fly, it would come straight to her lap and cuddle in her hand, every time she sat down. Dick, as she calls him, hates to be put out

of doors, the other birds torment him so. Blue jays, you know, eat other birds' eggs, and so, of course, the smaller birds are very much afraid of them. As soon as Dick is put out in the horse-chestnut tree, it is the signal for all the birds in the neighborhood to gather and try to chase him away."

As we neared the house we heard a great commotion in an apple tree in the orchard. A king-bird, with crest erect, was screaming and darting in and out. Some smaller birds were scolding with all their might. As we came nearer, we found that these were a pair of red-eyed vireos and a chipping-sparrow. Some robins came and added their loud voices to the clamor, and Dick flew in great haste to the porch, where the other birds dared not follow.

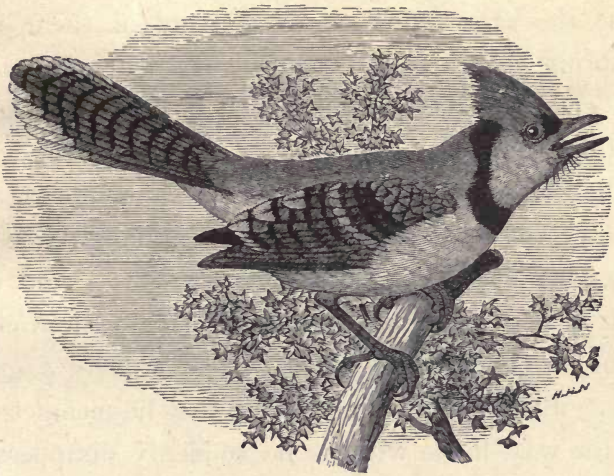
Miss Mary came out, and we asked her to call him down; but he declined to come when so many people were present.

"I know what will bring him," she said, and threw down her thimble. In a twinkling he was at her feet, had seized the thimble and flown away with it.

"Now I must watch where he hides it. He is just like a jackdaw about stealing bright things."

When Dick had safely tucked the stolen treasure

between the slats of the blind, Miss Mary gave Robert some corn to hold in his hand, as he sat on the step, while the rest of us retired to a little distance. Soon the handsome bird flew down to the floor, and hopped along cautiously, with his head now on one side, now on the other; picked a grain



BLUE JAY.

of corn from Robert's hand, then rolled up a bright eye to see if the little boy was looking, then snatched another and another till they were all gone. Robert held his breath while it lasted, but the others clapped their hands softly with delight.

"Isn't he perfectly lovely, all blue and white!"

"Just as cute as he can be!"

"I should not think such beautiful birds would be so naughty. What makes them steal eggs and corn?"

"Dick will never be so bad. He's too pretty."

"Handsome is that handsome does, say I."

"Dick is a rogue," said Miss Mary. "He loves to tease the cats, flying down in front of them, and tempting them to chase him. He will come to a bad end some day, I am afraid, if he doesn't learn caution."

Dick followed us for some distance down the street. Once, when no one was looking at him, he flew down suddenly and struck Kate's hat, and was back in the tree, almost before she could turn around. Then he chuckled to himself, as if it were a great joke. Just as we were thinking that he meant to go all the way home with us he suddenly disappeared, and we saw no more of him.

FOR THE TEACHER.

FLYCATCHERS.

The wood-pewee is similar to the phœbe in coloring, but is a little smaller, the phœbe being seven inches in length, the wood-pewee $6\frac{1}{4}$. It prefers the solitudes of the deep forests,

and places its nest on the limb of a tree, generally at a height of about twenty feet from the ground. Its note is more plaintive and drawling than the phœbe's, sounding like the syllables "pe-weêee," "pe-weêee."

Other flycatchers rarely seen in New England: The great crested flycatcher; length, $8\frac{3}{4}$ inches. The olive-sided flycatcher; length, $7\frac{1}{2}$ inches. The Traill's flycatcher; length, nearly six inches. The small green-crested flycatcher; length, $5\frac{1}{2}$ inches.

The vireos build pensile, beautifully constructed nests in the crotches of small branches. The only exception to the general scheme of color which I have mentioned, is found in the yellow-throated vireo, the throat and breast of which are sulphur yellow.

The red-eyed vireo frequents the trees in the neighborhood of houses. Its pleasing warble, constantly repeated, has given it the name of the preacher.

There are three other species: the warbling vireo, the white-eyed vireo, the solitary, or blue-headed, vireo.

CHAPTER X.

THE BIRD CLASS AT SCHOOL.

As I was walking slowly home through the quiet, shady streets after our last lesson, I was overtaken by Miss Graham, the teacher of most of my bird class. I gave her a warm greeting, for I was always glad to meet her, and she at once began to talk about the bird class.

"You don't know how much the children are learning," said she. "I have often wished I knew as much about birds as you do, for I have so many questions about them put to me that I can't answer. Now, when there is any such matter to be decided, I call for the bird class, and they can usually tell all about it. One day, when I arrived at school in the morning, the children came running to meet me.

"'Oh, teacher! oh, Miss Graham! there's an awful cunning little bird in the school-room.'

"Sure enough, there was a dear little bird flying against the windows, which had been closed for fear it should escape.

"'Oh, teacher, what kind is it? Can't we keep it here all the morning?' was the cry.

"'Oh no, my dears; the poor thing would beat itself to death against the glass. We'll just wait till some of the bird class come, and they will tell us the name of it; then we'll let it go.'

"Tom was the first one to appear, and the question was at once put to him. He looked very wise, and considered the subject a few moments; then he said,—

"'I'm not sure, Miss Graham, but I *think* it's a summer yellowbird.'

"Lois came next, and the instant she saw the little visitor, she exclaimed, 'I know; it's a summer yellowbird.'

"So, as two of the class agreed on it, each without knowing what the other had said, I was sure they must be right, and we opened the window, and let the poor frightened little creature fly away.

"Yesterday morning we had a great excitement. Robert and Alfred, my two smallest boys, were late to school. At last I heard them puffing and panting up the stairs, and Robert, with flushed cheeks and shining eyes, walked straight up to me, carrying carefully in his two hands a nest with a young robin in it. They were so excited they were all of a tremble, and both chattered at once, quite forgetting the disgrace of being late.

"'We finded the nest on the ground, and it can't fly at all, and please can't we keep it here on your desk, and feed it out of our lunch baskets?'

"So I put the nest, with the bird in it, on my desk where they could all see it, and told them they must be very good if I let it stay. They really did study better than usual that morning, only looking at robin once in a while, as he stretched up his neck and opened his mouth, as if for food. By and bye Johnny put up his hand, and asked if I wouldn't take the bird out of the nest, and let it hop around on my desk. So I said yes, if they'd be good. The robin had hopped around the desk but a few times, when Lois asked if I wouldn't *please* put him on the floor, and see if he wouldn't hop down the aisles. So again I said yes, if they'd learn their lessons better than usual. Would you believe it, all the morning that bird hopped about among the seats, and the children were as still as mice, not laughing at all, only peeping down at him, when he came close to them. At recess time they wanted to feed him. The boys went out, and soon came in with two of the biggest angle worms I ever saw.

"'Oh, don't give him such big worms as that!' I cried.

"'Why, don't you know,' shouted all the bird

class in chorus, 'he eats sixty-eight worms as big as this every day.'

"Of course I had to yield to the bird class, and Master Robin gulped down the worms as if they were nothing at all.

"At noon I told Rob and Alfred to take the bird back where they found it, so that the mother could feed it, for we could never find sixty-eight worms a day to fill its mouth."

When Miss Graham parted with me she gave me a composition written by Lois, and it is so good that I give a copy of it.

The Chimney-Swallows.

There are so many different kinds of birds that I cannot tell you about all of them, but will tell about as many as I have time. I will tell you about the swallows: there are five different kinds. The names of them are the white-breasted swallow, the eave or cliff-swallow, the barn-swallow, the bank-swallow, and the chimney-swallow. Before there were many houses the chimney-swallows built in hollow trees. Every year they all come together before they go south. One night a man was sitting in his house, and heard the greatest chirping out doors. He did not know what it was, and went out and found it came from a hollow tree. The next night he got a lantern and an axe, and cut a hole in the bottom of the tree, and put his head in, and what do you think he saw? He saw the tree was packed as tight as it could be with chimney-

swallows. We once had chimney-swallows in our chimney; but papa put screens over the chimney, and they could not get in. At the next house, the same side as we live, they had chimney-swallows. One time they found four little swallows that had fallen down the chimney. Two or three big ones have flown down the chimney into the sitting-room. The chimney-swallows' feet, or claws, are very small, so they do not use them very much. They have sharp needles like on their tails, which they stick into the chimney, and they help the swallows to climb the chimney.

Lois Banks.

CHAPTER XI.

A PICNIC.

You may be sure that on the day when the class met at my house there were no vacant chairs. Since the second time, the whole class had never been together at any one lesson. But when I told them that the day they came to the house on the hill for a lesson, they might bring their suppers and picnic in the grove, I saw by their faces that all intended to be there. Little Martha told me several times that it was such a long walk she was afraid she couldn't come, "'thout she took a nap in the morning." Even Cicely, who didn't care whether she came every time or not, and had easily found excuses to stay away a number of times, impressed it on Lois that she could never forgive her if she did not tell her when the picnic was coming.

So I set out the chairs and laid out my great bird books on the table; for, although the sky was clouded, I had no doubt that I should have a class. Soon a farm-wagon drove up, and landed a half-crazy crew at my door. It seemed to me that my class

had doubled in size, and I tried to count them. I found they were all there except Bertram (who had only been present at the first two lessons, and so did not dare call himself a member of the class); and, moreover, there were three extra ones — Mary, Ben, and Robert, younger brothers and sister of two of my class.

A person who is going to get on with such young folks must not be slow, so I hurried to get them seated, and began my lesson at once; telling them first that they must be sure to remember that the picnic did not come till *after* the lesson. We began by looking at the colored plates in DeKay's "Birds of New York," asking the class to name the birds they knew. The hawks were all "hen-hawks" to them, and the owls, "screech-owls."

"Have you ever heard of this bird, the whippoorwill?"

Instantly the boys and girls joined in a song they had learned at school.

"I love to stray by the wooded rill
Where the twilight shadows play,
And list to the song of the whippoorwill,
As he sings his evening lay.

Chorus. "Whippoorwill, whippoorwill, whippoorwill!
List to the song, list to the song!
Whippoorwill, whippoorwill, all the way."

"That is very pretty. So you do know about the whippoorwill, and now you see how he looks, with his mottled brown back and his great hairy mouth, wide open for the catching of small insects at twilight. Sometimes he will sit every night on the front door-step of some lonely farmhouse, uttering his plaintive cry of 'whip-poor-will.'"

Kate and Lois had together seen a wonderful bird, which they began to describe. "As large as a robin, all black and white, with a pinky red spot on the breast —"

"And pink under the wings, too," said Lois.

"No sir," said Kate; "I was with you when we saw it, and *I* didn't see any pink under the wings."

"I did," said Lois; "and when it flew I saw it very plain."

"Is this it?" I said, as we came to the picture of a rose-breasted grosbeak.

"Yes'm, that's it."

So we turned to the description and found that the under wing-coverts were rose-color, just as Lois had said.

"So much for bright eyes. This is the bird I am going to talk about to you to-day."

"Oh, a bluebird! a bluebird!" exclaimed all, as they looked at the picture of a small dark blue bird,

with greenish tints on the throat, and brown markings on wings and tail.

"It may be a blue bird," said I, "but that is not the name of it. It is called the indigo-bird. You see that is a darker color than the bluebird's. The reason why I tell you about it to-day is, because a pair of these birds is nesting in the raspberry bushes behind the house, and so you will have an opportunity to see them. For three years now they have built there, and we think it must be the same pair every time. When I first discovered the nest, the old birds were much afraid to have me come near. But now they know I won't hurt them; so Mr. Indigo sits on the top of the apple tree and sings, and Mrs. Indigo looks at me with her bright black eyes, but does not move, as I come close up to the nest. I wonder how they are wise enough to learn that I am their friend; for they do not mind me at all, while they are always afraid of cats.

"Every time a cat comes, the birds call so loud, that we run from the house to see what is the matter. Just as soon as we get there, the birds stop scolding, and seem to be satisfied that we will take care of them. I usually seize a broom and tin pan to throw at the cats; but it does not matter how much noise I make, the birds seem not to be afraid

at all. I do not know, though, what they will say to so many children, so we must go quietly."

We tiptoed out to the bushes, and one by one each child pressed forward and peeped into the nest, where four pale blue eggs were lying.

"Whath that little yellow brown bird in the pear tree?" whispered Sidney.

"Why, that's the mother-bird."

"Tithn't blue at all."

"No. You wouldn't know it was the same kind, would you? But it is, and you see she is quite anxious about her nest."

"I wish the father-bird would come down where we could see him, but he does not seem to care."

"Oh, I know what will fetch him." I ran to the house where we kept our cat confined all through bird-nesting time, and brought old Tabby. In a moment the male indigo-bird flew down, almost within reach, scolding, and flying back and forth in a great state of excitement. He seemed to shine with green and blue lights, and looked very handsome. When he had been admired by all, I took Tabby back to her quarters, and we went to visit the downy woodpecker's hole, of which I had told the story before. There were young birds in the nest, and when we all held our breaths for a moment we

thought we could hear them "chittering." We were in luck to see one of the old birds fly into the tree, eye us for a moment from behind a branch, then fly to the hole, and, sticking his head in, deliver up his mouthful to the ravenous youngsters.

DOWNY WOODPECKER.

When he had flown away, the boys decided that it was time for the picnic to begin, and started for the grove, with a whoop.

"Oh dear, it's beginning to rain. What shall we do?"

The grove was of pine trees, standing close together, and, though small, was dense.

"Get your umbrellas. The rain won't come through the trees much."

That was a good idea. It was even more fun to play "puss in the corner" with umbrella in hand than it was without, and "hide and coop" was made more exciting by the regulation that no one could be caught unless the head was seen.

'Twas a great pity that the supper in the grove had to be given up, but I do not believe we could

have laughed harder than we did as we sat in a long row on the piazza, with our laps full of good things, and ate and ate as people at picnics always do.

After we had feasted till we could feast no more, we played games on the piazza, for the grove was now become too damp.

Acting Words was called the best game of the afternoon. I played a double part in it. First the company was divided into two sides. Then I helped one side choose a word. They gave a word that rhymed with the chosen one. Then I went over to the other side and helped them to act words to rhyme with the one given them until they found the right one. Of course I was not to tell one part what the other part had told me.

Little Rob (only five years old) was quite wild with a desire to act. He raced back and forth, saying, "Can't I do one?" Soon he came and caught my dress, whispering, with a most earnest face, "Can't I just go and pick some grass and take in there? Won't that be a word?"

"I do not know, Rob; what word will it be?"

"I don't know," he said, shaking his head, "but can't I just?"

I said he must wait until I thought of a word for him. Soon he came again. "Can't I, Miss May,

can't I just lie down and kick up my heels? Won't that be a word?"

We laughed so hard that I was afraid his feelings would be hurt, so I hastily gave him some pebbles to pile up, pretending they were blocks. He did not care that they guessed the word "blocks" at once, but kept on building for half an hour, seriously thinking that he was helping on the game.

At six o'clock the farm wagon reappeared; the children bundled into it, under an army of umbrellas, all shouting "good-night" as they rattled down the road.

I am not sure how much of that day's lesson they will remember, but I am certain that they will never forget that they had a grand good time at the picnic.

FOR THE TEACHER.

The buntings belong to the Sparrow family, which contains a large proportion of our more familiar birds. Their distinguishing feature is a stout conical bill, suitable for eating seeds or buds.

The black-throated bunting is abundant in the states east of the Mississippi, but is rare in New England.

The more noticeable markings of the rose-breasted grosbeak are as follows: upper parts, generally, with head and neck all round, glossy black; a broad crescent across the upper

part of the breast, axillaries and under wing-coverts, carmine; rest of under parts, rump and upper tail-coverts, middle wing-coverts, spots on wings, and a large patch on the ends of the inner webs of the three outer tail-feathers, pure white.

Female. Color: Yellowish brown streaked with darker; head, with a central stripe above and one on each side, white; beneath, dirty white, streaked with brown on the breast and sides; under wing-coverts and axillaries, saffron-yellow. Length, $8\frac{1}{2}$ inches.

This bird is a not very common inhabitant of New England, yet I have usually seen at least one individual each season. It is a fine songster. It has a rich, strong voice, which, in its first notes, reminds one of an oriole.

It nests in low bushes in deep woods. Its food consists of seeds of birches and alders, various birds and berries, and occasionally insects and worms.

Indigo-bird. Color: Blue tinged with ultramarine on the head, throat, and middle of breast; elsewhere with verdigris-green; wing-feathers brown, edged externally with dull bluish brown.

Female. Brown above; whitish, obscurely streaked or blotched with brownish yellow beneath. Length, about $5\frac{3}{4}$ inches.

The indigo-bird has a short, peculiar song which it utters at intervals throughout the entire day. Though naturally a shy bird, it prefers to build its nest in the vicinity of houses and gardens: this is constructed in a low bush.

In the woods or in retired localities may frequently be seen the ground-robin, towhee, or chewink. The first name is given from the chestnut color on the sides of the breast,

which gives it a slight resemblance to our well known bird. The two latter names indicate its note.

Color: Upper parts generally, head and neck all round, and upper part of breast, glossy black; sides of the breast and under the wings, light chestnut; edges of outer six primaries with white at the base and on the middle of the outer web; inner two tertiaries also edged externally with white; tail-feathers, black; outer web of the first with the ends of the first to the third, white.

Female with the black replaced by brown. Length, $8\frac{3}{4}$ inches.

The ground-robin builds upon the ground and seeks its food among the fallen leaves, where it is almost continually scratching.

CHAPTER XII.

MIGRATION.

My bird class held one meeting in the fall after vacation was over.

"Some of you have been away," I said, as I looked around at the smiling faces.

"Yes'm," said Johnny; "we go to grandpa's every summer."

"And now, just as you are settling down to work, the birds are getting ready to start on their travels."

"I don't see what the birds have to do to get ready," said Kate; "can't they just start any time? They have no trunks to pack."

"No; but some of them put on travelling dresses, just as we do."

"Travelling dresses! My, how funny!"

"Yes; the gay bobolink cannot wear his black and white dress, which shows so clearly, so he puts on a plain brown suit like his wife's. Then he changes his name, too. When he gets to New Jersey he is called the reed-bird, because he and his fellows gather on the reeds in the marshes. Farther south

he is called the rice-bird, because he is so fond of eating the rice as it grows in the fields. He makes a more complete change of dress than any other bird I can think of; but several kinds are duller in plumage in the winter, and you know the young birds are hardly ever so brightly colored as the old ones before the next spring. Now, why do you think the birds go south?"

SNOW BUNTING.

"Because of the cold."

"Then why do some birds stay here all winter?"

"I guess their feathers are thicker."

"No, I don't believe you would find it so. Just think a moment."

All thought very hard for a moment, but were just about to give it up when Kate said, —

"Is it because they can't get anything to eat?"

"Yes, that is one of the chief reasons why they go. The swallows usually leave us in August, and other insect-eaters go early. What kinds could stay later?"

"Those that eat seeds?" asked Lois.

"Yes, and there are others. In the winter the snow covers the ground, and the insects that fly in the air are all gone, but the weeds and grasses that stick above the snow are full of seeds, and all the tree trunks have grubs and eggs tucked away under their bark."

"Oh yes, I forgot the woodpeckers."

"And the sumac bushes are full of berries and sometimes the corn in farmers' corncribs is where the blue jays can get it. So we can always have some kind of feathered friends around us. Isn't it strange to think how the birds all over the country are moving somewhere? The crows and blue jays are the only ones I think of now that stay in the same place. How do you think they can go so far, and what keeps them up in the air?"

"Because they're so little," said Johnny.

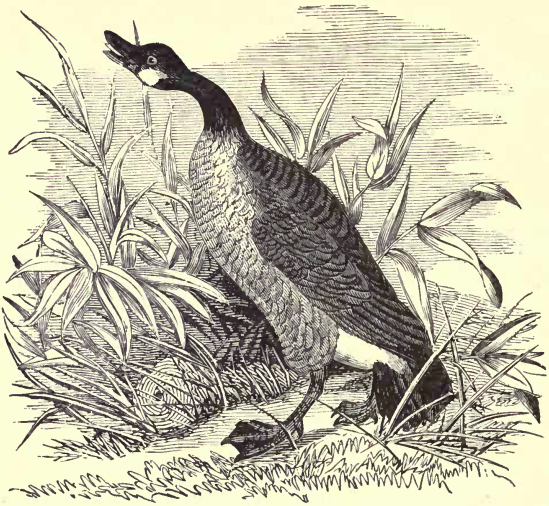
"Oh no," said I. "If you had a stone as big as a robin it would not be very light would it?"

"If I had a stone ath big ath a robin I could throw it from here way acroth the street," said Sidney.

"Yes; but you could not make it stay in the air could you? The little birds not only stay up in the air, but fly hundreds of miles. That is because their bones are hollow, and the air in them makes the

birds very light. But how they know the way to go so far, and then come back to the same place every year, as many of them do, we cannot tell.

"The wild geese go in marching order, in a straight line, with their captain in front, or in two



CANADA GOOSE.

lines, like the letter V, with the leader at the point. Stand up here and I will show you how they do it."

So I ranged them in order, with Tom as the leader.

"Now, Tom, you must say 'quonk' once in a while, as if to ask 'how are you getting on there?' and some one must answer 'quonk,' as if to say 'all right, sir.'"

After we had marched about a few times I told how a man I knew once saw a flock of wild geese on the Connecticut River. While the others were feeding, the leader sat on a rock and kept watch. When he saw some one coming this sentinel said "quonk," and they all flew away.

"When our summer birds are gone, then other birds, who have built their nests farther north, come to see us.

"The dear little chickadees come close to us for they know we would not hurt them.

"The tree-sparrows, that look so much like the chipping-sparrows, come in flocks.

"When the snow is on the ground the snowbird comes about our doors. I dare say you all know how he looks. He is dark gray above, the same color extending down his throat, and stopping in a line across the upper part of the breast.

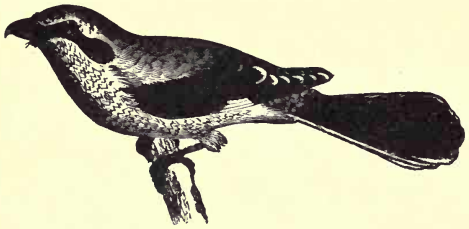
"Then there is a terrible bird that sometimes we see chasing the little birds. He is called the butcher-bird, or shrike. He is about as large as a robin. His color is light gray above, with black wings and tail. Beneath, he is white, with fine dark lines across his breast. His bill is very strong, and is bent down in a hook."

"But why does he chase the little birds, Miss May?" asked Johnny.

"Because he wants to catch them and eat them."

"I am going to get a gun and shoot that old butcher-bird," cried Sidney.

"Fortunately there are not a great many butcher-birds, and there are a great many small birds. Last winter I watched one chasing a hairy woodpecker. The woodpecker was so large that the butcher-bird did not dare fly right at him, so they kept dodging each other round a tree trunk. At last the woodpecker tried to go to the next tree, but the enemy was after him so fast that he lit in the path, while the butcher-bird perched on the fence and watched him. There they stayed till a man came by and scared them both back to the tree."



BUTCHER-BIRD.

"And which beat?" asked Tom.

"I do not know. I watched them for half an hour, and then I was so cold I had to leave them to fight it out by themselves; but I was almost sure the shrike would not succeed in getting the woodpecker."

"Oh, Miss May, is this truly the last lesson we

are going to have?" asked Lois, as we started for our walk.

"Yes, I am sorry to say it is; but you know you can come to me at any time, and tell me about birds you have seen."

"If this is the last walk," said Johnny, "let's go ever so far."

"Yeth, way down by the Connecticut, and up through North Meadow, and around by the chethnut trees," cried Sidney.

"Chestnuts aren't ripe, goosey," said Tom; "there haven't been any frosts yet."

"I am afraid that will be too long a walk," said I; "but we will go into North Meadow if you like."

On our way we passed a spruce tree close by the path, where we heard a cheery voice say "chick-a-dee-dee." We looked amongst the thick branches and saw a family of chickadees.

"They had a nest somewhere near by," I said. "I have been seeing them all summer."

"I thought they only came here in the winter," said Kate.

"Oh yes; they sometimes build here, but not very often."

In the meadow we saw a great flock of red-winged blackbirds in the distance.

"I gueth they are bobolinks," said Sidney; "they look brownish."

"Oh no," said Kate; "they're just as black as they can be."

"I think the bobolinks have already gone," said I.

"I don't care, there's a flock of brown birds now. They're bobolinks with their travelling dress on." But these proved to be meadow-larks.

These were all the birds we saw. When we reached the chestnut tree there were some green burrs on the ground, and it took some time to pound them open, and secure the unripe nuts. Then we went home over the fields of stubbly grass.

When I bade my class good by I said, "Now you have only made a beginning. You must watch the birds, and learn a great deal more about them."

"Why, I thought we knew all the birds," said Johnny.

"Oh no, indeed," said I; "only the most common ones."

FOR THE TEACHER.

The male bobolink, in his winter dress, is similar to the female. His appearance, then, is yellowish beneath; two stripes on the top of the head and the upper parts throughout, except the back of the neck and rump, dark brown, all edged with brownish yellow; the sides sparsely streaked with

dark brown, and a similar stripe behind the eye; three bands of yellow on the head.

The black and white dress of the bobolink is only worn during the mating season.

Another name for the chickadee is black-cap titmouse. Its color is: back, brownish ashy; top of head and throat, black; sides of head between them, white; beneath, whitish; brownish white on the sides; wings and tail plain, more or less white-edged. Length, five inches.

This little bird does incalculable good in destroying grubs concealed in tree buds, and eggs and larvæ hidden beneath the bark.

THE END.

SEASIDE AND WAYSIDE.

BOOK I.

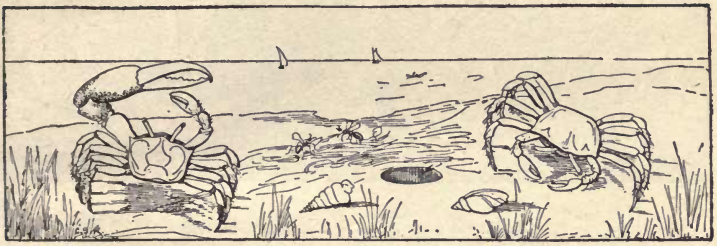


Illustration from No. 1. — Mr. and Mrs. Crab.

CONTENTS.

Lesson.		Lesson.	
I.	Mr. and Mrs. Crab.	XXI.	The Bee War.
II.	Mr. Crab and his House.	XXII.	The Bee's Work.
III.	More about Mr. Crab.	XXIII.	The Wise Bees.
IV.	Mr. and Mrs. Crab get New Coats.	XXIV.	Earth Bees.
V.	What the Crab does.	XXV.	Other Bees.
VI.	Mr. Crab and his Friends.	XXVI.	More about Bees.
VII.	Some Other Crabs.	XXVII.	The Spider and his Dress.
VIII.	The Hermit Crab.	XXVIII.	The Spider at Home.
IX.	The Crab's Enemies.	XXIX.	The Little Nest.
X.	The Uses of Crabs.	XXX.	The Spider and his Food.
XI.	Mrs. Wasp and her Home.	XXXI.	Very Queer Spiders.
XII.	What Mrs. Wasp can do.	XXXII.	Review.
XIII.	A Look at Mrs. Wasp.	XXXIII.	Out of Harm's Way.
XIV.	Mrs. Wasp's Year.	XXXIV.	Shell-Fish.
XV.	Mrs. Wasp at Home.	XXXV.	The Story of Mr. Conch.
XVI.	Review.	XXXVI.	Sea-Babies.
XVII.	The Bee and the Man.	XXXVII.	More about Sea-Babies.
XVIII.	How the Bee is Made.	XXXVIII.	About Mr. Drill.
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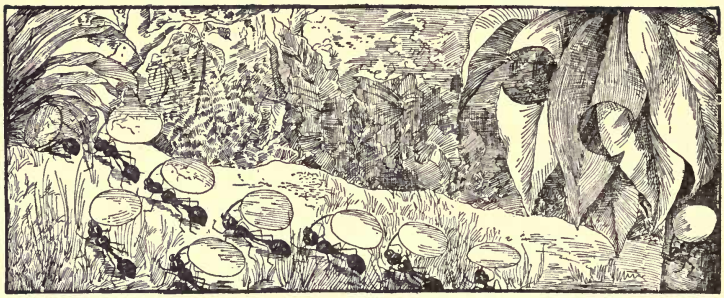

Illustration from No. 2. — THE PARASOL ANTS.

CONTENTS.

LESSON.	
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II.	The Life of an Ant.
III.	The Ant's Home.
IV.	The Ants at Home.
V.	The Ants on a Trip.
VI.	The Farmer Ants.
VII.	Ants and their Trades.
VIII.	The Slave Ants.
IX.	Wonder Ants.
X.	The Ways of Ants.
XI.	Mr. Worm and his Family.
XII.	The Earth-worm at Home.
XIII.	Mr. Worm at Work.
XIV.	Mr. Worm's Cottage by the Sea.
XV.	Mr. Worm at Home.
XVI.	A Look at a House-Fly
XVII.	How to Look at a Fly.
XVIII.	Mrs. Fly and her Foes.
XIX.	Of what Use are Flies.
XX.	A Swarm of Flies.
XXI.	Some Queer Flies.
XXII.	In Armor Clad.
XXIII.	When Mr. Beetle was Young.
XXIV.	How to Learn about Beetles.
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XXIX.	Mr. Beetle Seeks for a Home.
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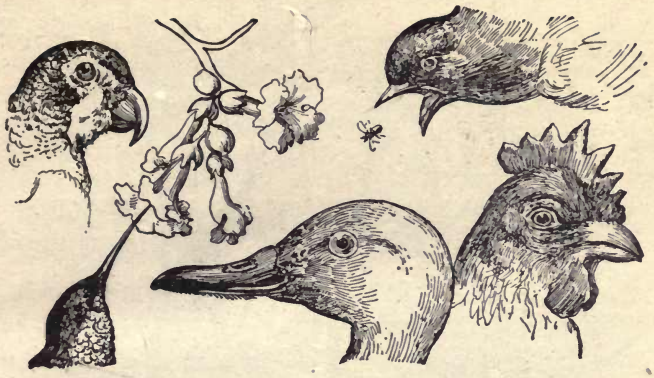

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II.	The Earth's Eldest Child.
III.	A Look at a Plant.
IV.	A Year in a Plant's Life.
V.	The Growth of Plants.
VI.	The Food of Plants.
VII.	Seeds and Leaves.
VIII.	The Color of Plants.
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X.	Plants and their Partners.
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XII.	Plants that eat Animals.
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XIV.	Plant Clocks.
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XVI.	The Old Man of the Meadow.
XVII.	The Life of the Old Man.
XVIII.	The Robber Cousin.
XIX.	The Merry Cousins.
XX.	Queer Cricket.
XIX.	Other Hoppers.
XXII.	A Real Live Fairy.
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XXIV.	Life Among Snow and Roses.
XXV.	Joseph's Coat.
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XXVIII.	The Bird.
XXIX.	Beaks and Claws.
XXX.	Trees, Ground, and Water Birds.
XXXI.	On the Wing.
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V. The Palm and the Man.
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VIII. Plan and Progression.
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X. The Queen of the Night.
XI. Vanished Fauna.
XII. A Mountain of Fossils.
XIII. Written in Rocks.
XIV. Footprints in the Sand.
XV. The Winter of the World.
XVI. Fossil Crabs.
XVII. Stone-Fish and Stone-Lilies.
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